

ovating in later years, to say nothing about increased green fees and the goodwill of your members.

By the way, what has become of the old compost pile that we used to think as much of as we did of our greens? Our fertilizers, seeds and power equipment is all very good today. All I can say is that when we find what suits our course best, stay with it and leave well enough alone. Too many changes is not good either for golf course or pocketbook.

The Green Section of the United States Golf Association has done us. Too much praise cannot be given our president and editor of the NATIONAL GREENKEEPER for his tireless efforts to make the NATIONAL GREENKEEPER what it is today. This goes for the officers of the N. A. G. A. and district members also. Without their help we would be lost.

I believe every golf club should have a copy of the NATIONAL GREENKEEPER on its library table along with the rest of the golf magazines, and, brother greenkeepers, any information you may have in regard to some little improvement you have made on your course don't fail to send it in to the NATIONAL GREENKEEPER because the NATIONAL GREENKEEPER is our Webster's dictionary on golf course maintenance today.

Never mind, brother greenkeepers, I have some good news for you as I got some inside dope that the government is going to set aside a reservation in the middle of the Pacific Ocean purposely for brown patch, dollar patch, ferry ring, scald, grubs and a hundred other pests we have to contend with. Then look out, high-pressure salesmen, so until that time, cheer up, brother greenkeepers—the worst is yet to come.

Pros Will Play Keller Club

By H. E. STODOLA

The Keller club, St. Paul, Minn., will be the scene of the National P. G. A. tournament to be held in September.

This is the first public course to be honored with the P. G. A. tournament and we are all anxious to have the course as fine as possible. More will be said about the course after the tournament.

* * *

Midland Hills club has a problem taking care of an infestation of grubs in the roughs and banks. The State University is helping Emil Picha, greenkeeper, in his problem and much experimenting is being done.

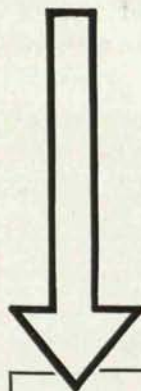
* * *

It has been a long time since we had rain in this district and water is at a premium. Hillcrest club has a new water pump and Stanley Graves is so pleased he sits around the pump house nights listening to the hum of the motor. Most of the courses have had less play this year, but next year everything will be going the other way.



Barbak proves its effectiveness and economy in survey of 200 Golf Clubs

You needn't take our word for it, Mr. Greenskeeper. Here's what 200 of your colleagues report about fighting Brown Patch. According to a recent survey, each application of Barbak is effective just about twice as long as any other fungicide. That's because it's formulated with slowly-soluble organic mercury.



200 golf clubs using Brown Patch Fungicides found that:

One application of	Lasts	Average
Inorganic Mercury	2-14 days	6 days
Quickly-soluble Organic Mercury	2-13 days	6 days
Slowly-soluble Organic Mercury*	2-27 days	10 days
*Barbak		

You know what a saving in labor that means... especially since the fungicide must be on guard throughout the season to protect your greens from the ever-threatening

Brown Patch. No fungicide can indefinitely prevent attacks but a good fungicide lessens the severity of violent attacks and wards off light attacks.

Try Barbak now. You'll find economy isn't its only virtue. It's odorless, easy to apply, doesn't cake in the can. It won't burn your turf, whether watered in or applied dry with sand or soil.

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FERTILITY IS LOW

USE WITH A BALANCED
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TURF DISINFECTANT



JOHN MORLEY

The Stimulation of Plant Growth By Means of Weak Poisons

By COLONEL JOHN MORLEY

BECAUSE of need of air, most roots are unable to thrive in wet soil and their best work is done in soil in which the water is held in a thin film around the soil particles.

The water absorbed by the roots contains mineral substances. It has been found that certain substances are indispensable to the plant while others are not. The indispensable substances comprise four bases and four acids. The bases are nitric, phosphoric, sulfuric and carbonic.

Too great cold and too great heat have much the same effect on the plant as lack of water. The former prevents absorption by the roots. The latter causes water to evaporate from the leaves faster than it can be supplied.

When the surface of the soil is loose and sufficiently dry, a circulation of air is kept up within the soil by constant changes in barometric pressure. When this is prevented the soil becomes sour and unfit for plants and the chemical processes that make food available to the plant are checked.

CERTAIN POISONS STIMULATE PLANT GROWTH

WE ARE informed that plant growth can be stimulated by the actions of certain poisons and it has been known for some time. In the practice of medicine it is well known that when small doses of poison

(strychnine, alcohol, arsenic), are administered, a stimulation of some part of the body results.

In a general way the same principle has been noticed in the growth of plants. The application of fungicides as Bordeaux mixture has often been found beneficial. First the mixture kills parasitic fungi, and secondly it stimulates the plants to a more vigorous growth, but its continual use creates too much copper in the soil which produces too many poisonous substances.

In 1897, Richards discovered the stimulating effects of zinc salts on the growth of the mold fungi. Ono, working in Japan, found that compounds of zinc, copper and iron when present in very small quantities exerted a stimulating effect on the growth of algae.

The action of the same poisonous compounds is not always the same on different grasses. Make up your mind that you have not reached the top of the ladder.

A "ruler" is a growth outcropping from a condition and environment which has been prepared to produce just such a result and no other. Just as fully as in the case with vegetative plant life, and so long too as the underlying conditions persist and in just such proportionate strength. Precisely that is the period when this type of lonely rulers will hold sway. Germination seeds of unrest, injustice and low mental stage produce an urgent forcing out process, which brings into the light a directorate.

Golf Tournaments

September 12-17—United States Golf Association Amateur Championship at the Baltimore Country Club.

September 22-23—League of the Lower Lakes Team Matches for the Depew Cup at Toledo.

September 25-October 1—United States Golf Association Women's Championship at the Salem Country Club (Salem, Mass.)

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Sulphate As a Fertilizer

By THORNTON CONOVER
Valley Club of Montecito, Santa Barbara, Calif.

In this article Mr. Conover answers a number of questions asked him in regard to his experiences with sulphate of ammonia, what fertilizers he uses, and the general upkeep of his course.

(Reprinted from the *Pacific Greenkeeper*)

SULPHATE of Ammonia began to be used in the early twenties and was well known to most greenkeepers by 1924. That year the amateur championship was played at Merion, near Philadelphia. Joe Valentine was and is now the greenkeeper there. The greens were in beautiful condition at the time of the championship. When asked to tell why his greens were so good, his answer was, "Sulphate of ammonia." He had used it liberally throughout the season. That remark went the rounds of the Eastern greenkeepers rapidly and most of them began the season of 1925 with the idea that all the greens needed was plenty of sulphate of ammonia.

Up until that time there had been little use of any fertilizer tending to make the soil acid and most of the courses, especially the putting greens, were neutral or slightly alkaline. Naturally the heavy doses of sulphate were highly beneficial and most of the clubs reported wonderful results from its use. However, the majority of greenkeepers failed to appreciate the fact that a fertilizer high in quickly available nitrogen and without any other mineral elements could not be used continuously without weakening the resistance of the grass to disease. But they continued to use it extravagantly until 1928.

That year was a very hard one on turf. It was hot and muggy for long periods. By the end of July most of the clubs were crying for mercy. The greens were simply riddled with brown patch, and mercury treatments seemed to do little good. Early in August a few clubs after advice from the U. S. G. A. Green Section treated their greens with heavy doses of lime. The effect was almost instantaneous and in a short time the greens were tremendously improved. By the end of the season the cry of lime was heard through the land and sulphate of ammonia was relegated to the dump heap.

The above account does not of course, apply to all of the clubs. Many, with really scientific greenkeepers, realized the danger of using sulphate of am-

monia alone and continued to treat their greens with other fertilizers. They mostly escaped the havoc of the season of 1928.

FROM ONE EXTREME TO ANOTHER

SINCE then the trend has been away from sulphate of ammonia and towards the use of lime and from what I hear from the East I am inclined to fear that they are overdoing the use of lime just as they did sulphate of ammonia. They are both almost essentials on a golf course but their purpose must be thoroughly understood.

That brings me to the question, "What fertilizers do you use on your course? How much do you apply, and how often?"

Before I answer these questions, let me say that I do not consider the mechanical improvement of the soil as an important feature of fertilizer treatment. I believe they should be considered separately. I think that organic matter can be introduced into the soil more advantageously in other forms than in fertilizers. If that idea is accepted the question of whether a fertilizer is organic is of little moment.

What we want to know is what available elements the fertilizers contain, how much they contain and how quickly they become available. If we know exactly how much nitrogen, phosphorus, and potash we are putting into the soil and keep an accurate record of each treatment it reduces fertilizing to a much more exact process. With certain fertilizers it is not difficult to approximate over how long a period their release of nitrogen continues. I am always wary of a fertilizer in which it is difficult to determine that.

I USE COMBINATION FERTILIZERS

I USE sulphate of ammonia, cotton seed meal, super-phosphate, muriate of potash, and lime. I seldom use a complete fertilizer, preferring to use

them singly or in various combinations. Roughly speaking, I use about the equivalent of a complete fertilizer through the winter, increasing the proportion of phosphorus in the early spring.

After April 1, I use sulphate of ammonia at frequent intervals, but very lightly; from one to two pounds to one thousand square feet. Also light applications of cotton seed meal. I mix cotton seed meal with my top dressings but not the sulphate of ammonia. I believe the less fertilizer you can put on the greens between April and November the better you are off. I always defer using sulphate of ammonia until I am convinced that more nitrogen is needed on a green. I consider every green an individual and treat it so.

Our greens average on a pH test from 6.4 to 6.8. They are all seaside bent. I like to keep them between those points. In the light of recent experiments, I am not at all sure though that the neutral point is not equally good or better.

I have written enough I think to be excused from writing much about the course in general. I consider the architecture of the course exceptional. We have been badly handicapped for lack of water during the past two years so the playing of the course has not been properly tested, but I believe that when our fairways are in good shape the course will present as interesting a test for players of all types as can be found on the coast.

Minnesota Gossip

By L. J. FESER, *Greenkeeper,*
Woodhill Country Club, Wayzata, Minnesota

OUR monthly meeting was held August 8, at the Minneapolis Golf Club and the Golden Valley Golf Club. Harold Stodola was among the absent at this meeting, and this individual wonders why he doesn't send a reporter to these meetings. Hope that Harold will be able to tell you about our September meeting which will be held at the Keller and Hillcrest clubs of St. Paul.

Minneapolis is shining as usual under the master hand of Vic Larson. Vic has beautiful bent greens, some Washington and most of a homebred strain called Minneapolis bent. Perfect putting surfaces on all of them. Larson never needs to get his course ready for a special event; it is in condition at all times.

The big problem at Minneapolis is white clover in the fairways. Previous to the installation of a fairway

watering system, Minneapolis fairways were free of white clover. Even now there is no clover in the rough and unwatered areas, but the fairways are lush with the plant. Vic is constantly fighting it with fertilizer as his budget allows, and is making steady progress against the weed.

* * *

MINNEAPOLIS HAS PERFECT GREENS

ONE leaves Minneapolis club with the mental picture of perfect greens in a setting of beautiful young spruces, pines, birches, elms and maples. When the course was constructed, there were practically no trees on the land. Hundreds of trees planted soon after construction have been nursed along to twenty and thirty-foot spreading stock that makes the course one of the gems of this district.

* * *

Leaving Larson's course with an ample interior supply of near beer and pretzels, we dashed a few miles overland to Golden Valley where Mike Sanko runs the works. Every course in this district has a habit of getting better each year, regardless of tough times, drought or what have you. Golden Valley in one of the outstanding examples of course improvement under the supervision of a capable greenkeeper.

* * *

One of the stock jokes of a decade ago was the fitting of the name to the course. The grass was mostly brown which was called golden to make it sound better. Golden Valley can now be called the "Valley of Green," and Mike is the boy that made it that way. To any of our brothers who find their way up into this section of the country, let me advise you to see this peach of a golf course, and play a few shots over the rolling hills.

WASHINGTON BENT AT GOLDEN VALLEY

A VERY peculiar phenomenon is a puzzle to Mike as well as to the rest of the local boys. Mike has a lot of Washington bent. At early stages this grass was very coarse, but most of it is getting finer every year. Under practically identical conditions, one of the greens remains somewhat coarse. This rascal doesn't respond to the same treatment that has made excellent turf on the other greens.

* * *

Sanko needs a crew of Pittsburgh hill climbers to mow around his traps. Most of them are deep enough to use a flashlight to locate the balls, but the banks are kept very heavily turfed, and are mowed by hand mowers. Mike was born in Pittsburgh, so he figures that the hills are O. K. Any of the Pittsburgh boys that want to argue this point will please look me up at Chicago. Challenges must be made in writing on or before January 1, 1933, and weapons must be limited from aces to deuces, inclusive.

News from The Southland

By MERLE ZWEIFEL

Texas

DICK GROUT, pro, and W. D. Overton, greenkeeper, of the Glen Garden Golf Club of Fort Worth, are making some very interesting experiments with bent grass. They believe that bent grass can be successfully adapted to the golf courses in the Lone Star state, especially if brown patch can be controlled during the summer months.

They have a small plot of bent grass at their Glen Garden club which is the only bent in the entire state of Texas at the present time. Years ago one of the larger golf clubs of Dallas made several attempts to obtain a set of bent greens but without success and it was finally discarded for the hardy Bermuda, which is now the standard putting green grass of the south.

Bent grass suffers most in this locality during the hot days of July and August when entire greens become discolored and finally are burned out completely. It is very difficult to control brown patch because of the rapid changes in temperature which causes this disease to spread swiftly over night.

* * *

Bermuda grass, however, has its objectionable features when used as a putting turf. During the spring, Bermuda greens are as smooth and velvety as one could wish for when well cared for, but during the summer and early fall it becomes coarse and stringy and only heavy coats of soil topdressing repeated every other week will keep the grass in playing condition. And hard winters sometimes kill the grass in the northern sections of the state causing a delay in obtaining a grass putting surface for the coming season.

* * *

P. S. Maxwell, well-known golf course architect of Texas and Oklahoma has just completed the job of building 36 grass greens at the new Walnut Hill fee course on Lemmon avenue and adjoining the aviation fields northwest of the city of Fort Worth. The first eighteen greens have been planted to Bermuda grass and will be ready for play by October 1st and the second eighteen will be open for early spring play.

This course represents an initial investment of over one quarter million dollars, the consideration for the land alone being nine hundred dollars per acre. The fairways were leveled up and planted to Bermuda grass last spring and a modern fairway irrigation system will be installed. It will be the largest commercial course in the state of Texas.

* * *

Two hundred and fifty miles west of the city of Austin, in southwest Texas and near the Rio Pecos river, this writer found one of the most unusual golf courses in

the United States. Supported by a town of three hundred population this club has about sixty active members and a nine-hole course with grass greens that are comparable to grass green courses at some of the larger cities of the south. And believe it or not, the cost of keeping this course in good playing condition does not exceed one hundred dollars per year. That seems almost impossible but here's how it's done.

The nine-hole links zig-zag over a hill covered with thick native mesquite grass which makes a fine turf that does not burn in the summer season. The greens were selected on small knolls or mounds to give the desired built up effect and these are also heavily turfed with mesquite grass. A large herd of sheep are allowed to graze on the course thereby keeping the grass on both fairway and rough cropped close to the top of the ground and eliminating the expense of mowing.

Each Saturday morning the "Greenkeeper" drives the sheep to an adjoining pasture, mows the greens with a lawn mower and the course is ready for the week-end play. The greenkeeper is paid a small sum each week for his services and he also has the privilege of playing on the course when he so desires. The total expense of upkeep which included the purchase of a lawn mower, rental on land, greenkeeper's salary, etc., was less than ninety dollars last season.

But the most remarkable feature of this small course is the mesquite grass which is a really a more desirable putting surface than sand greens and is certainly more economical.

Although miniature golf itself has passed into history it created a great interest in golf in the smaller towns and communities throughout the entire country and such courses provide a place to play for those golfers that are not financially able to hold membership in a larger club.

* * *

The city of Dallas is planning the construction of twenty-seven holes of grass greens and watered fairways at their Oak Grove municipal course according to reports

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received from that city recently. Work on the first eighteen will begin sometime this fall with space provided for an additional nine holes to be constructed in the future. This will give Dallas nine private courses and six "pay as you play" courses.

* * *

Fort Stockton, in west Texas steps out with a new nine-hole links with greens of cottonseed hulls to replace the old sand greens. Because of the mercury climbing up to around 110 degrees in the summer at this town a few holes of golf on the oiled sand greens gives one's feet the boiled in oil feeling especially if the shoe soles happen to be of crepe rubber.

* * *

Oklahoma

THE Cyrus S. Avery commercial golf course northeast of Tulsa will be the first course in Oklahoma to boast of a successful fairway irrigation system if plans of its owners are carried out. Water lines will be laid immediately and it will be completed and ready for use sometime in September. Fairways were cleared of all trees and stumps sometime ago, and were sodded to Bermuda grass which will give golfers the best fairway turf available for their shots.

This course will be up to date in every respect, large tees will be the vogue providing plenty of tee-off space for the heavy week-end play and the greens are to be of the latest design and planted to cocoos bent grass. Mr. Avery expects to have this course ready for play sometime in November. The greenkeeper for this course has not been selected.

* * *

Greenkeepers in Oklahoma have had a siege of brown patch during the last six weeks that has apparently broken all records since the advent of bent grass and indications are that it will continue to give even the veteran greenkeepers a stiff battle until cooler weather arrives. A recent survey shows all the bent grass greens in the state affected more or less seriously with this disease, however it has been checked by the use of Nu-Green Barbak, 211 and other brown patch controls.

* * *

Bermuda grass has embedded itself in some of the state's finest bent grass greens and has given the greenkeepers no small amount of worry especially at Oklahoma City where two greenkeepers there have announced their intention of letting the Bermuda spread where it will, forming combination greens. They ex-

plain that a large percent of the bent is killed by brown patch and they would just as soon revert to the Bermuda grass greens anyway as the bent grass is too delicate for the Oklahoma climate.

A couple of years ago when creeping bent was introduced into the State of Oklahoma the Bermuda was stripped from the greens to make way for the new grass, but a few roots were not uncovered and those roots are now causing all the trouble.

Combination greens are not as popular as some club officials might think. They usually become rough and do not give the sleek velvety appearance that bent grass alone does. It is absolutely necessary to give the Bermuda grass a heavy coat of cotton hulls or straw at the beginning of winter to keep it from freezing out. And this would lead to the temporary greens of sand which are not pleasing to those members that are accustomed to good bent greens.

* * *

Grover Zweifel of Indian Hills, Tulsa, Oklahoma, is experimenting with a new fertilizer to take the place of the common soil topdressing. He has mixed equal parts of pulverized poultry manure and peat moss and has fertilized No. 5 green at his course with this mixture. If the desired results are obtained it will eliminate the necessity of having to topdress with dirt in the hot summer months. Bent grass is almost dormant during this period and a heavy coat of soil topdressing sometimes smothers the grass causing yellow spots.

* * *

Missouri

IF THERE were any bets made during these days of depression (and brown patch) it would be a safe bet that W. M. Herod of the Oak Hills Country Club, at Joplin, keeps a golf course in better condition with less labor than any other club in the country at the present time. Mr. Herod has only one helper to assist him and they mow greens and tees with a hand mower, mow the roughs and fairways, water the greens at night with a hand sprayer and numerous other jobs such as topdressing greens, cleaning tee boxes, taking care of shrubbery around the club house, and doing all the mechanical work.

And he is also responsible for the water supply which requires constant attention. Right now he is having plenty of trouble with chickweed and crab grass which threatens to choke out the bent greens and he is engaged in the tedious task of weeding the greens himself.

* * *

The Reding's Mill course at Reding's Mill park south of Joplin have been very successful in keeping their greens free of brown patch during the last few weeks and regardless of the fact that there are some ugly patches on several of the greens they are in much better condition than most of the grass greens over the country.

The apparent reason for this is that there has been very little play over the nine-hole links recently, consequently



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the greens have been mowed only once each week and the grass is allowed to grow until it is an inch tall and very rank, offering considerable resistance to the ravages of brown patch.

* * *

Kansas

CHESTER MENDENHALL, greenkeeper of the Wichita Country Club of Wichita, Kansas, fortunately, has had very little trouble with brown patch this season and he attributes his success in controlling this disease to the steady use of Calo Clor, which he applies to his greens in the powder form to prevent burning. Mr. Mendenhall has eighteen greens of beautiful creeping bent grass and bluegrass fairways that are in perfect condition.

With an efficient watering system he has succeeded in keeping his fairways green and healthy while other clubs in the southwest have lost their fairways through lack of rain.

* * *

Mr. Mendenhall is district vice president of the National Greenkeepers' Association of America and has been an active member ever since its organization. During the early days of the Greenkeepers' Association Mr. Mendenhall made a tour of the southwest at his own expense to acquaint greenkeepers with the purpose of the Association and he also secured a number of members for that organization.

Mr. Mendenhall is author of several articles on golf course maintenance. One of the most interesting of these articles was one which appeared in the *Greenkeeper*, entitled "Making Compost" and it was warmly accepted by greenkeepers over the entire nation. Mr. Mendenhall is regarded as an authority on topdressing and soil fertilization.

* * *

Two other club in Wichita have been successful in obtaining good bent grass putting surfaces. They are the Crestview Golf Club where N. McCarty is the greenkeeper and the Meadow Lark Club. Both courses have good bent turf greens with no foreign grasses showing up.

Canadian News

By J. H. EVANS, *Golf Editor,*
Toronto Globe

FOR the first time in the history of golf in Canada, officials of the Royal Canadian Golf association and officers and members of the greenkeepers' associations of Ontario and Quebec met to discuss the problems associated with the development and maintenance of courses in Canada when they came together at the Royal York golf course, Toronto, on August 12.

Ganson Depew, chairman of the Green section of the United States Golf association, attended the meeting and

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extended the goodwill of the United States Golf association.

The original intention of the Greenkeepers' associations of Ontario and Quebec was to hold a meeting in September on the Royal York course with Dr. John Monteith, expert of the United States Golf association, and others associated with course development as speakers. The plan was to have Dr. Monteith view the results of the demonstrations in the plot on the course maintained by the Royal Canadian Golf association with Federal Government assistance and the cooperation of the United States Golf association.

* * *

On account of the Canadian amateur golf championship which had brought governors of the Royal Canadian Golf association to the adjacent Lambton course for the tournament it was decided to advance the meeting a month. Circulars distributed by the greenkeepers' associations and by the golf association were responsible for the first representative meeting of its kind in eastern Canada since the greenkeepers and the golf association undertook to do something for the development of courses along scientific lines. As a matter of fact it was the first occasion on which greenkeepers and officialdom of golf met together.

Presidents of a number of small clubs throughout the Province also accepted the invitations. They came to learn, if it were possible, through Dr. Monteith how to secure a modern course at a small cost. Dr. Monteith offered no solution, no panacea, for their problems. Dr. Monteith warned them, however, against proceeding with improvements which might prove costly until they were sure of the value of the treatments recommended.

DR. MONTEITH DESCRIBES PLOTS

"THIS is a demonstrational plot, not an experimental plot," said Dr. Monteith, explaining that the United States Golf association carried on its experimental work in Virginia and Illinois and was applying the experiments through demonstrations about the United States and Canada to learn how the results of the work in the

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two centres in the United States might be applied to other parts of the continent.

"I assume it holds in Canada as it does in the United States that clubs are experimenting frequently along haphazard and costly lines," he continued. "For instance a club which may be having trouble with its greens and fairways will make a comparison with the results of another course and suddenly become panicky and turn to another grass for no reason whatsoever. We had an example of this. A friend sent us Bermuda grass. We sent it to Florida and then we suddenly found that 18 greens had been sown with it. This was ridiculous because it might be a failure. Grass can't be judged in a year."

Dr. Monteith pointed out that Illinois red top had been sold in the United States as German mixed bent. He explained that the product from Illinois had been shipped to Germany and had come back as the most desirable seed for greens. Clubs purchased it and failed to secure the result promised from the German mixed bent. He claimed also that the only difference between two varieties of bent as placed on the market was the price and the name.

Dr. Monteith expressed the opinion that while Canada might be a natural climate for velvet bent results revealed that it did not stand up as well in Canada as in other parts of the continent. He added, however, that velvet bent was a slow grass to become established.

COMMENTING ON BROWN PATCH

COMMENTING on brown patch, Dr. Monteith remarked that it was with some amusement that he received reports commenting on the rarity of the disease in Canada. He referred to some of it which he had seen in the plot and remarked that it would be of no concern to people in other parts of the continent, in St. Louis for instance.

"When a method for treating any condition arises some people desire to apply it to everything," said Dr. Monteith. "For instance, in Pennsylvania beetles do a great deal of damage. Methods taken to destroy them should to some officials be used to destroy other vermin. All that we can say is that there are certain places for certain treatments."

Members of the staff of the Ontario Agricultural College who followed Dr. Monteith through his discourse stated that the two lessons to be secured from his visit was the supremacy of Washington bent and the value of fall seeding instead of spring seeding.

President Plant, of the Royal Canadian Golf association, presided at the dinner held in the club in the even-

ing. Mr. Depew commented on the cordial relations existing between the golf associations of Canada and the United States.

"The United States Golf association has worked faithfully through its green section for 16 years and we hope now in the interests of the greenkeepers of Canada," said Mr. Depew. "We like to regard the greenkeepers of Canada and the United States as one of a happy family. I consider it an honor to carry a membership in the National Greenkeepers' association."

Pacific Coast Gossip

By ARTHUR LANGTON

NEWS emanating from the Pacific Coast for the past the Olympic games, although it may be difficult to conceive how golf courses and the Olympiad could in any way be connected. Nevertheless, the phenomenal success of the American team as a whole may be laid to the fact that the athletes of this country constructed for themselves on the spacious lawns of the Olympic village a miniature golf course.

The architect, layout, greenkeeper and other details have not been ascertained, for although it may be a comparatively simple task to drive a camel through the eye of a needle, it was practically impossible for all but athletes to invade the sacred confines of the village.

Much amusement was afforded the Italian athletes by the rotating sprinklers employed to keep the grass green. Mussolini's muscular men spent minutes at a time viewing the wonders of water pressure whirling the sprinkler arms. It would seem that sprinkler manufacturers have been neglecting a market in Italia.

The Riviera Country club of Santa Monica contributed largely towards the procedure of the international sports program. It was here that the equestrian events were centered.

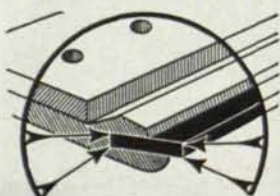
NORTHERN CALIFORNIA GREENKEEPERS ELECT OFFICERS

THE newly-organized Northern California Greenkeepers' Association recently elected the following officers: Will Rogers, Contra Costa club, president; Tom Nichols, Los Altos club, vice president; H. Sam Smith, Union League club, secretary and treasurer. These men will serve on the board of directors in addition to T. Duncan MacFarlane, California club of San Francisco; William Mayo, Presidio club; Roy Hanna, Castlewood club; and E. W. VanGorder, Stanford University golf course.

Incidentally, the new president, Will Rogers, is no relation to the Oklahoma and Beverly Hills comedian, but his friends will testify that he is a humorist in his own right. The last meeting of this group was held at Stanford University Golf course. There are thirty-five members.

Scientific American reports the latest innovation from California in the world of golf. A player from Girard,

ALL CAN HAVE THEM NOW!



"Would like to have them but can't afford it" is a thing of the past. Increased production and decreased manufacturing cost bring this efficient, 4-cutting-edge blade within the price of all. Write for new price List "NN" and full details. A postal will do.

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being somewhat of a naturalist, knew that butterflies are attracted by certain scents. Being also a scientist he compounded a strong perfume with which he sprays his golf balls. If he loses one, he waits around in the approximate vicinity until butterflies, attracted by the scent, gather around the ball, revealing its presence.

No longer is there need for greensmen to go to the expense of cutting the rough. All that is necessary is a few cans of perfume for the dousing of golf balls at convenient intervals.

WEATHER HAS BEEN COOL ON THE COAST

THUS far the weather has been unusually cool on the Coast. This combined with the fact that greenkeepers have not been able to afford too much fertilizer seems to have reduced the ravages of brown patch over the record of last year.

A scientist at the University of California has discovered that dogs and cats may be kept out of shrubbery by spraying the plants with a dilute solution of nicotine sulphate. He neglected to state whether or not it would be useful in keeping careless golfers out.

The sometimes golf championship of Pacific Southwest greenkeepers was held on Monday, August 8, at the Palos Verdes Country club. Gomer Simms on his home course walked off with all the honors, turning in low scores in the pitch and putt tournament, the putting tournament, and the regular 18-hole round.

The Cover Photo

Liza Commander, one of the band of well-known Indian caddies at the French River Golf and Country Club, is the daughter of Peter Commander, old-time Indian resident and one of a family of nine children.

Liza is an all-round sportswoman. She can stay in the water for hours and the present intention of the C. P. R. camp at French River is to enter her in the women's marathon swim at the Canadian National Exhibition at Toronto this year.

Control of White Clover

National Greenkeeper,
Cleveland, Ohio.

Gentlemen:

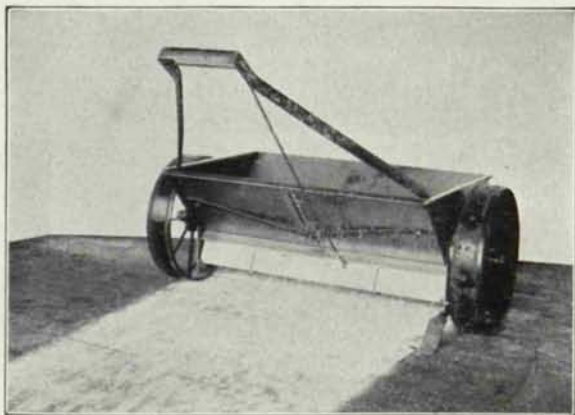
Sometime ago I made an inquiry as to how to control white clover in putting greens. Your answer was to use sulphate of ammonia and make the greens acid. I am following your advice along with raking the greens thoroughly both ways with a very sharp garden rake. Our greens are much improved and we hope they will soon be much better.

At the same time I wrote to you I wrote to the Agricultural College at Ames, Iowa, where I attended college asking them for information and Mr. V. T. Stoutemeyer of the Pomology section in his letter suggested that it

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THE SPREADER YOU HAVE BEEN SEEKING

Price **\$50.00**

(F. O. B. Cleveland)

SPECIFICATIONS

Hopper Capacity.....3 cubic ft.
Width over all.....4 ft.
Width of spread.....36 in.
Width of wheels.....4 in.
Direct gear drive, feed roller only
3 inches above ground, graduated
feed scale.
Net weight of machine...125 lbs.
Shipping weight.....175 lbs.

No other spreader has
**FINGER-TOUCH
CONTROL.**

Is absolutely positive and
solves every problem.
Experts have proved it.
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ROOT WEED KILLER



Uses dry ammonium sulphate
instead of poison liquids. It is
the same height as a cane. Kills
the weed but does not destroy
the turf. Positive in action and
results.

Price \$12.00 per doz.



Lyman Carrier Products

Granger, Indiana

Cocoos Creeping Bent Seed

Lecco, The Complete Grass Food

Washington Bent Sod and Stolens

Write Today for Literature and Prices

might be something worthwhile for someone to develop a cultural disease for clover to be used for its eradication. I thought that was a mighty bright idea and wondered if it might not apply to dandelion and chickweed as well.

I don't think anyone is going to get very far in destroying weeds in the putting green by the use of chemical for when applied strongly enough to kill the weed it kills the grass, but I do believe that by counteracting some disease peculiar to a certain weed it will kill it and leave the grass the same as brown patch will kill the grass and not injure the weed.

I am writing this to the GREENKEEPER in the hope that the idea might get to someone who is in a position to make research along that line.

LOUIS V. GOWDEY, *Greenkeeper*,
Green Gables Country Club,
Edgewater, Colorado.

All-Star Greenkeeper's Meet

By JACK GORMLEY

The all-star greenkeepers of the Northeastern New York Greenkeepers' Association held their August meeting at the Edison Country Club, Rexford, N. Y. This club is owned and operated by the General Electric Company and R. Mitchell is the greenkeeper.

The meeting consisted of a demonstration period from 2:30 to 5:00 p. m., which included Jacobsen greens mowers, the Worthington "Overgreen" Scout greens mower and the Locker Steel Chain company greens mower.

After the demonstration there was a discussion on greens mowers and a talk by Professor Horsfall, Entomologist, Barbak Company. Several Green committee chairmen were present and made remarks which were of interest to the greenkeepers. Dinner was served at 6:00 o'clock and was followed by a business meeting.

Fall Seeding

Early September is the seeding time not only for new golf courses which have been constructed through the summer but for reseeding fairways, tees and greens of established courses.

To accomplish this work successfully the choice of seed and the source of supply is most important. One must buy from a seed house of long standing and a reputation for fair dealing and fair prices.

In the purchase of seed, quality comes first. While price is important of course, it is a well-known fact that cheap seed in the end is the most expensive. What use is there of preparing areas and sowing seed which does not grow. Not only the price but the labor is lost and when spring comes there is grief for the greenkeeper and the members.

One of the oldest and most reliable seed houses in the United States is O. M. Scott & Sons Company, Marysville, Ohio. This company handles only seeds of high germination and purity. They make prompt shipments at reasonable prices and they guarantee their product to be just what they claim for it.

Cleveland Toro in New Quarters

M. C. Johnson, president of the Cleveland Toro Company, announces the opening of a new sales and service station at 7602 Carnegie Avenue, Cleveland, Ohio.

This is in the heart of the business district and is located on the most densely traveled thoroughfare in Cleveland. The new location is ideal for patrons who do not wish to drive to out-of-way places to secure the exclusive materials which this company handles.

The main feature of the Cleveland Toro line is, of course, Toro mowing equipment, which includes tractors and gang mowers for large areas and hand mowers for lawns, tees and greens. The Toro line is so well established that it needs no comment. They also handle all classes of fertilizers, chief of which are Milorganite and Lecco.

Their line of grass seeds is very complete and everything which they sell is certified as to purity and germination. This line includes the finest grades of bent, fescue, white clover, blue grass and redtop.

They also handle a line of general equipment and cater not only to golf courses, but to private estates, parks, cemeteries and schools and colleges. Associated with Mr. Johnson is John Alves and Norbert Browne, who are well known in the trade.

American Cyanamid Consolidates

In order to more effectively place at the disposal of its customers the combined technical, manufacturing, sales and shipping facilities of the industrial chemical and insecticide units of the American Cyanamid Company and affiliated companies, American Cyanamid & Chemical Corporation has consolidated the activities formerly carried on by the following companies:

American Cyanamid Company, Industrial Chemical Division; American Cyanamid Sales Company; The Kalbfleisch Corporation; A. Klipstein & Co., Inc.; John C. Wiarda & Co., Inc.; Superior Chemical Co., Inc.; Fumigators Supply Company.

All correspondence should be addressed to American Cyanamid & Chemical Corporation at the same address to which you have been accustomed to send letters or other communications.