

at some period or another there were days and nights of intense heat and oppressive humidity. Apparently pythium requires such extreme conditions to make it active in putting turf. Changing weather quickly checks this disease and hence in normal summers the disease does not get far even if it should start.

Pythium having made its appearance on some courses was not recognized as such. The usual fungicidal treatment did not check it with the result that some ordinarily calm beings lost their customary poise and became rather erratic with their cultural practices. Overwatering and fertilizing greatly increase the susceptibility of turf to pythium, but in a good many cases these were not factors, since the putting greens were situated in locations where poor air circulation greatly increased the humidity. Other greens were poorly drained, which aided in maintaining the high humidity as well as increasing the susceptibility of the turf to disease by its ill effect on the plants.

Of course there was the usual amount of injured turf caused by the lack of moisture on the high terraces, mounds and edges of putting greens. These areas are usually topped with poor soil which becomes packed and hence it is almost impossible to get enough water into the soil to sustain the turf through the extreme heat. An effort to wet the soil on these areas usually results in flooding the low areas of the putting green which in turn kills the turf in these areas by oversaturation. This is a common summer problem and putting greens should not be built with such extreme slopes and mounds. Some greenkeepers, unfortunate enough to have such conditions to contend with, helped to some extent by forking these hard areas and by working sand and organic matter into the holes thus made. It was also found to be helpful to allow the grass to grow longer on the sharp edges and mounds surrounding the putting surface.

Layer Construction Dangerous

Under the extreme conditions of this summer there was an increased amount of turf injured due to the practice of building greens with layers of various materials. Even a thin layer of pure sand or peat buried beneath the surface is for various reasons harmful to the turf, especially in extremely hot weather.

The injury on other putting greens was due to the accumulation of too dense a nap. The successive burying of a heavy nap by



Many diagnosed pythium wrong, but this is a bad case and no mistake.

topdressing in time forms a layer on the surface of the green similar to a thatched roof. It is difficult for the roots of the young plants on the surface to reach the soil and they become unhealthy. Also under conditions of humidity and heat this layer often commences to rot which, of course, ruins the surface.

Some species of putting green grasses normally weak in summer proved altogether unable to withstand the continued heat and humidity of this summer. The most important of these was *poa-annua*. In some sections *poa-annua* dies or "goes out" gradually as the hot weather approaches and other more vigorous summer putting green grasses, such as the bent grasses, replace the disappearing *poa-annua* plants rapidly enough so that some sort of putting surface is maintained. In other sections, such as the Chicago area, *poa-annua* usually remains, although in a somewhat weakened condition throughout the summer.

Poa-annua can apparently withstand heat, but it cannot withstand a combination of heat and excessive humidity. Hence it was

not uncommon for *poa-annua* to die almost overnight this summer, leaving large bare areas on the putting greens. In mixed greens, as a rule, the bent patches were uninjured with bare areas between them in which the *poa-annua* had previously been in possession.

Season Endorsed Chosen Bents

This summer *poa-annua* was not the only putting green grass to suffer; some beautiful bent greens also fell victim to this phenomenon or condition. Colonial bent suffered more than usual. Often the disappearing *poa-annua* left the Colonial bent unprotected, and hastened its departure. Poor strains of creeping bent became much poorer than usual and the turf in some cases weakened beyond recovery. Weak strains of velvet bent in mixed bent greens found the conditions too severe and passed out. The recognized good strains of creeping bent withstood the severe conditions of this past summer better than any other putting green grasses.

This summer brought out one fact in particular. All through the wide area of turf injury it became increasingly apparent that the various strains of creeping bent generally recommended for putting greens were remarkably vigorous and free from injury compared to other putting green grasses. Mixed bent putting greens often referred to as seeded greens, have many points in their favor and may produce better putting turf under certain conditions; however, the fact remains that the creeping bent greens evidently were better able to survive the conditions encountered this summer.

Many comparatively well constructed greens with well established turf of mixed bents or of good strains of creeping bent were injured this summer due to an effort to maintain these greens during the summer in the same beautiful soft lush condition in which they are kept during the spring and fall. That it is a mistake to try to keep putting greens during the summer in a luxurious fast growing condition, possible in the spring and fall, by heavy fertilizing and frequent watering has been satisfactorily demonstrated this summer. Everything considered putting greens kept half starved during the late spring and summer and watered carefully so that the surface soil was not continually saturated to the exclusion of air were found to come through the summer with much less turf injury than those kept in an unnatural condition.

Manufacturers Report on Golf Goods Credit Standings

LAATEST QUARTERLY report of National Association of Golf Club manufacturers and Golf Ball Manufacturers' association shows \$432,654 owing these manufacturers for six months or more by dealers, pros, clubs, driving ranges, miniature courses, etc. Accounts of less than \$25 are not considered in the report. Accounts in the \$200 to \$500 class constitute greatest section of delinquents, 28.43 per cent. Slightly more than 47 per cent of the accounts are under \$500. Pros and other retail outlets have about same per capita delinquency.

Improvement in the pro position is looked for this season as the manufacturers are getting after the pro delinquents who are unattached. Furthermore, attached pros have been clearing out stocks at price reductions and by strong selling efforts this indicates that most of the pro stocks will be turned into cash before the season ends. Toughest spot in the pro business has been with the pros whose clubs do not collect for them. When these pros go strong after collection of accounts personally from their members it frequently means the pro is working himself out of a job. Too rarely club officials stand up for the pro who is trying to get what's owing him so he can pay off his manufacturer creditors.

There is some talk of the manufacturers' association preparing a credit rating for all pros and making this rating available to suppliers who are not members of the club and ball associations. Such a rating will give credit standings of all pros rather than be confined to list of delinquents on books of associations' members which is the present method.

New Jersey Fall Field Day Scheduled for October 5

ANNUAL FALL field day on grass culture, jointly sponsored by the N. J. State Golf ass'n, the N. J. Greenkeepers' ass'n and the N. J. Agricultural Experiment station, will be held October 5 at New Brunswick, according to word from Howard B. Sprague, agronomist of the experiment station. The entire program will be devoted to problems of turf management. Several well-known speakers will present informational addresses.

Pro Vet Says Season's Lesson Was to Put Steam Into Sales

By GEORGE SARGENT
Professional, Scioto Country Club

DURING YEARS of business upsets and revision the pro, like all other business men, must change his methods to suit the times. It is much to the credit of the golf profession that the necessary changes have been so speedily and thoughtfully accomplished.

For some time past I was of the opinion that by far the major part of a pro's time and energy should be occupied with instruction and I have harbored the thought that possibly too much emphasis was being placed on merchandising. This year's experience has so radically switched my views that I now am firmly of the opinion that the pros are holding back too much on their selling work.

Two significant items accounted for my own change of thought. During the Ryder Cup matches at Scioto, threatening weather and a sudden shower made it possible for me to sell about 150 inexpensive raincoats to the gallery in much less than that many minutes. That was an impressive example of what business could be had by the pro if the pro were ready, and it certainly was business that represented a real service to my customers.

The other thought-provoking experience was listening to the remarks of one of Scioto's members, Freeman T. Eagleson, at the lively little P. G. A. conference held during Ryder Cup week at Columbus. Mr. Eagleson is one of those members that any pro and any club treasures and when I heard him confess lack of acquaintance with the pro business problems, and make some pointed suggestions, I was spurred immediately to some deep study of pro business methods.

One who has spent as much time as I have in professional golf is bound to be conscious of the constantly changing character of our business. I believe that we have laid a solid foundation for a vast improvement in instruction by the work the P. G. A. has done with its motion pictures. Never has other action taken by the association focussed public attention on com-

petent pros and resultful instruction as forcibly as our pictures. Pros are profiting. It is obvious that we must take timely advantage of our merchandising opportunities.

Record Year for Business

I have been impressed, in my own case, by the ease with which a pro can increase his sales and his member service if he adjusts his merchandising to the times. At my shop, July and August were among the two biggest months of my pro experience for sales volume. The interest aroused by the Ryder Cup matches kept play up well despite almost insufferably hot weather. With the people playing it is up to the pro to get them to buy. I found that price re-arrangements to bring the merchandise down to prices that made real temptations speedily increased sales and moved merchandise that, otherwise, I might have been holding in stock through the winter.

One of the shortcomings of the professional, I believe, is a reluctance to make the slightest verbal suggestion of purchases. Possibly some of us have been too shy, or have been wrong in believing that it is beneath the station of pro duties to do some actual profitable selling. I am coming to think that the further we progress as instructors the more we see the need of proper playing equipment by our members and, consequently, the necessity of more extensive and helpful selling as an important part of our work.

To my way of thinking one of the highly important phases of training and employing our assistants is connected with proper



George Sargent

selling to the members. I have come to the conclusion that unless a professional has in his shop an assistant who can sell and who shows an intelligent, persistent interest in merchandising, the pro is much better off if he immediately makes a change. Possibly some of the defects of the assistant are due to the pro not impressing strongly enough on the boy the necessity of good selling as a service that the members expect to be informed and superior, as well as the part of the assistant's work that pays the assistant's salary.

The master professional must be outside his shop a good part of the time so it is imperative that the inside work of his shop be entrusted to a competent and alert assistant who is a first class salesman. I found it necessary to make a change in my shop personnel this year in order to get an assistant who was a real salesman, and engaging a boy who was on the job in making my shop a lively retailing establishment was a substantial factor in increasing the season's income.

Capitalize Opportunity

I have been given to understand by several of the leading manufacturers that the advance of pro business methods this year, and the failure of store selling based on price alone, has served to bring the pro into his logical, favored position as the foremost retail outlet for worthy golf goods in 1932. We will see, so I am advised, strong policies giving the pro at least an even break, adopted by practically all of the leading makers of golf goods during 1932. At last, it seems, that we have won the place for which we have been striving and it is up to the pros to justify this victory by merchandising methods that will exhibit the highest plane of independent retailers' business operation. During this crucial season of 1931 the pro has proved his right to preference and continuance of his dearly won triumph depends on each pro's energetic and thoughtful development of his sales possibilities.

We have been holding back long enough because we have been fearful of pushing carefully chosen and proper merchandise as an essential of service to our members. I'd say that making up for this time lost while we were patiently and thoroughly appraising the situation is our task for 1932. Furthermore, I believe that in selling lies one of the main answers to pro unemployment. I am told that there are only about 3,900 pro outlets at the almost

6,000 golf clubs of the country, so at the smaller clubs, the fee courses and the municipal courses it is part of the pros' job to prove that expert selection and selling of golf playing equipment is so valuable to the players that the engagement of a pro is fully warranted by his ability as a buying guide. If the services of a director of buying are found valuable to the members of private clubs where informed, well-to-do and veteran players constitute the membership, then certainly such services are magnified in value at establishments where the majority of the play is composed of comparative newcomers to the game.

There are many of my veteran comrades in pro golf who may have minimized the importance of retailing at their clubs, just as I have, but if they got through the 1931 season without coming to a realization that selling rates about 50-50 with instruction as a pro duty I trust that these lines about my experience will move them to thought. The veterans, as well as the hundreds of splendid assistants they have painstakingly trained to be credits to the game and assets to the players, will do well to spend their meditative hours during the winter in planning for bigger and better selling during the 1932 season.

New Jersey Greens Course, Feb. 22-26, 1932

COLLEGE OF Agriculture bulletin from Rutgers university, the state university of New Jersey, announces that the institution's annual one-week course in turf management will be held February 22-26, 1932. Tuition is free to residents of New Jersey. There is a small registration fee.

The New Jersey course is an excellent, practical summarization of greenkeeping practice. Complete details of the course and information regarding enrollment by residents and non-residents of New Jersey may be obtained from F. J. Helyar, director, Short Course building, New Brunswick, N. J.

CHILDREN'S DANCING parties make good entertainment events for clubs these days of socially precocious kids. One of the features of the Penobscot Valley C. C. yearly entertainment program is the annual dancing party for children Thanksgiving afternoon.

Clubhouses Weathered Stormy Year by Letting Managers Manage

By JACK FULTON, JR.

WHAT SORT of a year has 1931 been for house operation? Will the nation's clubs take it on the chin financially or will the battle be a draw? Club officials and club managers, familiar with conditions in their own little bailiwicks, are wondering what their neighbors and the country as a whole will report after annual statements are out. They are wondering because they hope to draw important conclusions from the full returns and expect to plan next year's actions on the recognizable trends of this season's progress.

Beginning in mid-September, scores of letters have been sent from GOLFDOM's office to managers all over the country, asking how 1931 house nets in their districts were going to compare with 1930 figures, what falling off there has been in memberships, what concessions in membership price the clubs have made this year to maintain full rosters, how the green-fee volume compares with a year ago, and other similar questions.

The replies received are necessarily incomplete at press time. For many managers, the active season is not yet over. None reported the release of his annual statement and many of them cautioned that what information they were sending must be taken as an estimate of the year and not as final facts. Whether this indicates that the managers hope the returns will be better than they expected or fear they may be worse, it is hard to say. Possibly it is merely a case of playing safe.

Member-Slump Varies

Nevertheless, certain definite trends are apparent. Foremost is the fact that the private clubs of the nation have fewer members than listed a year ago, although it appears that the number of *active* members has not greatly changed. It is safe to estimate that not one club in 50 has a full roster today. The percentage of

slump-off from last season varies with the section of the country, the Detroit and New York districts appearing to be the hardest hit. Some Detroit authorities believe the district's average will approach 20 per cent; however, this is the most pessimistic view, the consensus believing 15 per cent to be a truer figure.

New York appears to be spotty. Some clubs in the district have held their membership total to the 1930 level through aggressive selling campaigns and reductions in initiation fees.

Chicago reports about a 10 per cent deficiency in number of allowable members. Cleveland figures about the same. St. Louis estimates are placed at about 8 per cent as are the returns from Philadelphia and Pittsburgh.

Better maintenance of 1930 levels are reported from New England, Minneapolis-St. Paul, and the Pacific Northwest. California's season of big play is just beginning and so cannot be considered in this article. The same applies to the southern half of the U. S.

Normal Loss, but Sales Harder

One manager furnishes an interesting explanation of this member loss. It is, he points out, not a direct, but an indirect result of the depression-hysteria of today. It is not a case of golfers dropping their club affiliations because they can no longer afford them, in his opinion, and he backs up his contention by pointing out that in any year the normal turnover of memberships due to deaths, removals, resignations, etc., will not be far from 10 per cent.

Instead, he believes the loss is the result of the difficulty experienced by membership committees in their efforts to replace the normal turnover with new faces. In final analysis golf is a luxury and many a man who had the money and in normal times would not have objected to being put up for membership in the club of his

choice, this year decided he was not sufficiently sure of what the future held for him and he had better not find himself committed to additional expenditures. He delayed joining.

That was the reason for the membership slump, this manager believes. It was not an increase in resignations; it was rather a decrease in memberships sold. He says fewer men joined golf clubs in 1931 than in any year in the past five.

Picture Not All Gloom

The pessimistic side of GOLFDOM's research is almost entirely covered by the above. The rest of the picture is reasonably bright and cheerful. For example, few clubs failed to include and insist upon radical economies in their 1931 budgets. They entered the season with full knowledge that 1931's attendance volume would probably be under the previous year and they adjusted their plans accordingly—eliminating employes where they could be spared, cutting salaries when the cut was justified, reducing the extent, and thereby the expense, of non-revenue producing activities wherever possible, and delaying until more stable times the start of capital improvements that were not essential to the club's 1931 well-being.

Further, managers were ordered to watch pennies as closely as they had formerly guarded dollars, were required to buy for immediate needs only, to eliminate waste in all departments, especially the kitchen, and to simplify the routine organization of the club so that the maximum number of employes would have the minimum amount of idle time between the week-end peaks of rush business.

Income, Costs, Both Down

What has been the result of this nationwide economy program? It is a real pleasure to report that all indications point to a season about like last year. Total business is down, but so are costs, and the year is going to end with few clubs any worse off than twelve months ago. Those that were in the red at the close of 1930 will for the most part be in the red this year also, but no deeper. Those that returned a profit apparently will do so again. And the ones which broke even a year ago will come so near repeating that their losses will at worst have only a slight pinkish tinge.

If the returns on this inquiry can be depended on as a national average of conditions, the year has been a valuable one in

pointing out to club officials and executives the economies possible with concerted effort. In the past few years the structure of country clubs has grown more and more complex with the seasons and the average layout, not offering all manner of activities in addition to golf, was liable to lose prestige. Emphasis was being placed on the social side of club life. Money was being broadcast for ritz and brass buttons. There were some clubs at which golf was becoming of secondary interest.

This year has taught many clubs that an orgy of spending is not vital to club success. It has taught them that the luxury of a Russian ex-count to open the clubhouse portals is not a factor in the puttability of the greens or the palatability of the dining room steaks.

This does not mean that clubs are now offering golf and nothing else. They still schedule dances and card parties, and continue to maintain tennis courts and swimming pools. But it does mean that the dances are to five-piece orchestras instead of ten-man aggregations, that first prize in the women's six-week bridge tourney is a \$25 electric clock rather than a \$100 wrist watch, and so on. Lack of member complaint at this retrenchment has proved most educational not only to many boards of governors, but to no small number of managers as well.

Letting Right Man Steer

If club managers were ever in a sweet spot, they are in it today. In the past few years, under the influence of ritz and prosperity, many a board of governors has gone ahead in its own sweet, unbusiness-like way over the protest of the club manager with "improvements" that were thoroughly unjustified in the light of the club's financial condition. And strangely, most of these "improvements" worked out, under the influence of easy money and good times. Boards began to discount the value of their managers' advice, since few board-born projects failed. Why, then, pay the manager so much salary. There was an obvious trend toward replacing experienced managers with cheaper men.

The past year has corrected all that. Sailing suddenly became less smooth for the ship of state. The governors found themselves running into snags which formerly they had cleared easily in the swift current of prosperity. Moreover, the proper channel ahead was nowhere near as wide as it had been. They needed a pilot, and they turned—to the manager,

whose experience and advice they found a great deal more valuable than they had thought. Today, there is little talk of cutting managers' salaries, because the clubs realize his importance in a club's well-being.

A matter of financial nature had its effect on the results of the year, this item being a general reduction in interest charges. Where bond issues and short term obligations came due, they were for the most part paid up or else re-financed at a lower interest rate. And at the same time, few clubs increased their funded debt. It is estimated that 18-hole clubs today average \$1,500 less interest charges annually than was the case in 1929, and reductions are expected to continue each year for some time to come. This had considerable to do with the showing of the year.

Under existing conditions, it is difficult to regard the future of our country clubs in anything but the most optimistic vein. They came through a difficult year in splendid fashion, due principally to intelligent application of economy measures, in spite of increased competition from daily-fee and municipal courses, and in spite of a late season's start and excess week-end rains in early summer that for a time, if they continued, threatened to cut attendance to a hitherto unexperienced minimum.

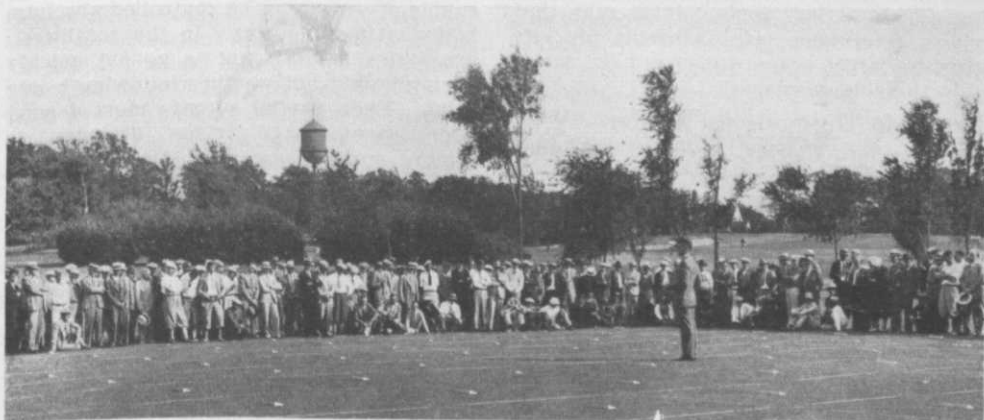
What lies ahead in 1932 will be more obvious a month or two from now, after the season ends and the annual statements are in. All that need be emphasized now is that the bell for the 1931 round finds the clubs still on their feet—and not pulling their punches.

Green Section Meetings Have Record Attendance

OLD DAYS when the Green section held a single annual meeting with an attendance of 50 to 80 men paled in light of the 1931 meetings the section held at various experimental plots. More than 1,000 men attended these affairs, examined the experimental plots and exchanged notes on trials and triumphs during the tearful season.

The biggest Green section meeting ever held was that at the Mill Road farm experimental plots, August 31. More than 400 course superintendents and greenkeepers studied the work done there under the close supervision of C. A. Tregillus, superintendent for A. D. Lasker, owner of the Mill Road estate. John Monteith, Jr., and Ken Welton of the Section and Tregillus went through the details of the work and results at the outdoor meeting. Ganson Depew, chairman of the Green section, W. D. Vanderpool, former chairman; Guy Peters, chairman of the Chicago district golf association green section; Col. John Morley, president, N. A. G. A.; Alex Pirie, honorary president of the P. G. A., and Herb Graffis, editor GOLFDOM, spoke at the dinner given at Knollwood C. C., following the outdoor session.

LANDSCAPING is important. The finest golf layout in the world may lack interest if the surroundings are unpleasant, while a mediocre course appeals a great deal to the majority when the backgrounds and vistas are well thought out.



John Monteith, Jr., of Green Section, explains test plot performance at Mill Road Farm station during record-sized meeting of course superintendents and green-chairmen.

"Easy on High-Power Nitrogen" Is Southern Winter Warning

By O. J. NOER

GOLF CLUBS in the South are confronted with problems in turf maintenance which are peculiar to that section. These are accentuated in Florida, where the preponderance of light sandy soils account for plant food deficiencies not encountered in other sections. Heavy annual precipitation and porous sandy soil results in rapid loss of plant food by leaching. Favorable air temperatures and abundant rainfall produce luxuriant vegetation, but this advantage is partially offset by the greater variety and abundance of insect pests.

Nowhere are insects a more serious threat than in Florida. The greener grass on golf courses attract these pests from adjoining waste lands with almost devastating results. Their control is a problem deserving of special attention to simplify and safeguard turf maintenance, but that concerns the entomologist, and is beyond the scope of the present discussion.

It is universal practice to use Bermuda as the basal grass on southern greens. This constitutes the putting surface for summer usage, but it is accepted practice to seed rye or other suitable grass for winter play. Bermuda is also the principal fairway grass, although carpet grass is favored by many, particularly on the moister low-lying areas. It is said that where conditions are favorable for its growth, carpet grass will crowd out many objectionable weeds.

Bermuda Dormant in Winter

In southern Florida, Bermuda continues growth throughout the winter, but from central Florida north it turns brown in the late fall, and remains dormant throughout the winter season. Due to this climatic difference, courses in south Florida can maintain green fairways throughout the important winter season, and several courses south of Palm Beach have continued with Bermuda greens without resorting to supplementary seedings of winter grass. Whether the prejudices against Bermuda can be overcome only time will tell.

The customary fall seeding does not interfere with play on courses open during the winter only, but where play continues throughout the year, surfaces are poor for a period in the fall until the new grass becomes established, and for an even longer period in the spring, extending from the time winter grass starts to disappear until the Bermuda reestablishes itself.

Golfers accustomed to the bent greens of the North object to Bermuda greens because it develops stubby hard surface stems and coarse broad leaves. This is not so noticeable on new turf developed from seed, but even this turf gradually becomes coarse.

To overcome these objections, there has been considerable agitation lately in favor of bent to provide grass for all year play. Its successful use in southern California and western Kansas are cited as proof that it will survive far south of the present limits. Unquestionably, bent will grow in the southeastern states during the winter, but it is not apt to withstand severe summer weather. Southern California has a hot dry climate, and this is also true of western Kansas during the summer. Consequently, grass is free from dew during the most difficult summer season, and the supply of water can be controlled absolutely by artificial means. In the southwestern states, bent is apt to go out quickly during humid hot weather following heavy rains. Even partial success must depend upon exceptional surface drainage to remove surplus water rapidly, and a soil sufficiently porous to accelerate downward movement of any superfluous water absorbed by the soil.

Doubts Bent's Success in South

Careful watering, correct feeding, and constant control of fungus diseases and insect pests obviously are also very essential. Even the best of care may fail during an unusually wet, hot summer. The abominable surfaces following even partial loss of bent turf and the probable high cost of maintenance will deter general use of



No. 9 green of south course at Boca Raton, Fla., a hole that Tom Armour says is one of the world's greatest. The course is rich in evidence of scientific maintenance.

bent in the South. Bermuda has no equal as a hot weather grass, and for the present will continue as the most suitable grass for summer play. Search for finer-leaved strains and better methods of maintenance offers more promise for better summer putting surfaces than general adoption of bent. Two sets of greens, one for summer and the other for winter play is one solution for inconveniences incident to fall seeding and Bermuda revival in the spring.

When to Seed Winter Grass

Winter grass is seeded when temperatures are moderate—during October in the Carolinas, and late in November in Florida. Prior to seeding, the greens are raked thoroughly and cut close. This removes many superfluous runners, and serves to prepare a seed bed for the young seedlings. Fertilizer is then applied, seed is sowed and covered with a moderate topdressing. The soil is kept moist by frequent watering to promote germination and obtain a stand of grass quickly. Once a good stand of well-rooted grass is obtained, few difficulties confront subsequent maintenance.

The most serious trouble occurs during the first few weeks following seeding. New leaf growth is often soft and tender, but with age, leaf structures tend to become more sturdy. If hot humid weather follows seeding and leaf structures are especially succulent, the young grass succumbs. In extreme cases reseeding becomes necessary. The affliction resembles the "damping off" which occurs in the greenhouse in the winter when grasses are grown for experimental purposes. Greenhouse temperatures of 80° Fahrenheit or more, and heavy watering usually induce a "damping off" of new seedlings. It can be prevented by maintaining temperatures approximating 60° F., watering carefully, and avoiding excessive initial nitrogen feeding.

Obviously, outdoor temperatures cannot be controlled, so the only hope of minimizing trouble lies in cultural methods which tend to produce a sturdier initial growth. Practices which promote early root development and production of sturdier leaves will surely lessen the severity of injury, and make control possible. Failure to recognize and apply these fundamental underlying principles are in a measure responsible for the troubles immediately following seeding.

Methods followed during the summer are not suitable for winter grass. Bermuda must be kept vegetative to offset its tendency to mature, and thus produce stiff leaves and stubby stems. This necessitates generous watering and heavier nitrogen feeding with only sufficient phosphoric acid and potash to satisfy growth requirements.

Go Easy on Nitrogen

In many instances the fertilizers used before seeding have aggravated troubles. The tendency has been to use nitrogen, which is the growth producing element, too generously. Rapid growth, no matter how produced, is always associated with more tender leaf structures; so nitrogen by forcing initial growth unduly may accentuate the young seedlings' natural tendency to produce weak leaves. On new seedlings phosphoric acid excites a marked stimulating effect on initial root development, and potash tends to produce somewhat sturdier leaves. Hence, it would seem logical to withhold nitrogen prior to seeding, and confine fertilization to applications of phosphoric acid, and possibly potash on the sandier soils. After a good root system is obtained, nitrogen feeding can begin, and its use continued throughout the playing season as turf condition warrants.

Generous use of nitrogen on Bermuda in early fall should be avoided, for residual nitrogen in the soil may force the new seedlings. This danger can be overcome by having the Bermuda just a little nitrogen-hungry at the time of seeding.

Water plays a very important role in its effect upon amount and character of growth. In the presence of a limited moisture supply, growth is restricted and tissues become harder. Where water is plentiful, rapid growth occurs and plant tissues are softer. These effects are often overlooked, and the possibilities of influencing the amount and character of growth by partial control of the water supply seldom considered.

Proportionately more water is used on Bermuda greens than is customary on bent greens in the North. This is, undoubtedly, sound practice, provided excesses which saturate the soil are avoided, because it encourages more active vegetative growth. On winter grass a minimum of water, just sufficient to satisfy growth requirements, will tend to produce stronger turf.

This Program Succeeded in 1930

For those who desire a concrete example, the program followed by several greenkeepers in Florida last fall may be of interest. Whether it deserves general adoption and will prove equally successful during a severe season remains to be seen.

Fertilizer applications consisted of 2 to 4 lbs. of 45 per cent superphosphate (4 to 10 lbs. of 16 or 20 per cent phosphate) and 2 to 3 lbs. of 50 per cent muriate of potash per 1,000 sq. ft. of surface. Applications were made 7 to 10 days prior to seeding to avoid all danger of retarding germination, or injury to the young seedling. No nitrogen was used, and fall feeding of Bermuda was previously curtailed.

After seeding, the greens were top-dressed with a soil devoid of plant food. It consisted of a mixture of marl and sand in proportions such as to make a good sandy loam. Humus, muck, peat, and rich compost were purposely omitted from this one topdressing mixture. Watering was watched closely. Just enough to permit growth was supplied, and excesses avoided. An excellent stand of grass was obtained, and nitrogen feeding was not started until a good root system had developed. Nitrogen feeding was continued during the playing season, frequency and rate of application depended upon turf condition, using color, amount of growth, and sturdiness as a guide.

Chicago Managers Beat Detroit in Annual Tourney

SIXTEEN members of the Detroit Club Managers' Association traveled to Chicago on September 28th to compete against fellow managers of the Chicago district in their annual golf meet. Competition was for the honor of inscribing one or the other association's name on a new trophy, donated by Wm. A. Stewart; for permanent possession, the trophy must be won three times. Chicago was victor this year.

After an early morning breakfast at South Shore C. C., activities were transferred to Midlothian C. C., where Harry E. Krueger, manager, did his stuff as host. The afternoon was given over to the golf tournament and the early evening found the managers very busy getting in condition for the excellent steak dinner Krueger served. And to top off the day and make it a perfect one, Frank Murray, manager of Ravisloe C. C. and secretary-treasurer of the Chicago managers' organization, exercised excellent judgment as toastmaster by holding down all speeches.

Winners at golf were: low gross, Frank Perkis, Attic club, Chicago, 85; low net, Walter Patterson, Detroit Boat club, 102-35-67; low net, Detroit, John Hartley, Franklin Hills C. C., 90-16-74; low net, Chicago, Delmar T. Johnston, 92-17-75; second net, Detroit, Jesse Wetzal, Detroit club, 118-32-76; second net, Chicago, George Billingsley, Lake Shore Athletic club, 93-18-75. Ed. Shaw of Nordic (Chicago) won the blind bogey event, John Ingleson of Gowanie (Detroit) placing second.

New York Has Team Event That's Worth Copying

PROGRESS IN promoting understanding and harmony between golf club department heads shines forth brightly in an announcement from the Metropolitan Club Managers' association. President Bill Norcross of the managers' organization in the New York City district and President John Inglis of the Metropolitan district P. G. A., collaborated in arranging a Manager-Pro golf tournament which was held at Inglis' establishment, the Old C. C., at Flushing. Each pro and manager was invited to bring his own club team-mate. The event was well attended and helped bring these department heads together on a thoroughly good basis for their clubs' benefit.