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Golf Course Trees Respond Fast to Feeding Program

By HOMER L. JACOBS Davey Tree Expert Co.

T IS no secret to greenkeepers that applications of chemical and organic fer-

tilizers are beneficial to greens, tees and fairways. In fact, fertilizers are a well recognized necessity in connection with turf growth. But what about the fertilization of the trees that border these fairways, that shade the tees and that contribute so much to the beauty and popularity of both the golf course and the grounds? Is shade tree feeding practical, advisable and necessary?

Whether you are considering grass, farm crops or trees, good, well prepared and well managed soils are equally essential to healthy, vigorous growth. Shade trees after all, are just large plants. Their fundamental requirements are essentially the same as those of turf or of commercial crops. And because this is true, it frequently happens that golf course trees need help, for all too often they are expected to thrive where conditions are entirely unsatisfactory.

Because of these things, it is strange that we find so little thought given to shade tree feeding. The greenkeeper, for instance, prepares the best and richest soils for his greens, but assumes that the trees, which have to draw on the soil in one spot for perhaps a hundred years or longer, need no assistance in their struggle for life. Many and varied are the theoretical and imaginary reasons why shade trees should be segregated from other plants insofar as fertilizers are concerned.

But if theory and limited observations can be swept aside, and if practical results can be considered, then it can be definitely stated that the general value of fertilizers in shade tree care has been amply demonstrated on many thousands of trees.

Methods and materials used in agriculture often are neither necessary nor desirable in the feeding of shade trees, at least no more so than they are necessary in golf course maintenance. The reason for this is the difference in environment under which the trees may grow and because we do not require shade trees to produce a commercial crop of edible seeds, roots or tubers. Ordinarily, the value of a shade tree lies in its reatful color, in its form and in the cool, refreshing shade it provides during summer. Just as a good green must form a perfect carpet of grass. so must the beautiful tree give a luxuriant mass of fresh, green foliage.

Trees Need Fertilizer

Of fundamental importance in the health of trees are factors such as drainage and the physical condition of the soil. But beyond these, chemical fertilizers play a very definite and important part in producing fine, healthy, green foliage. If chemical fertilizers are so important, what should they supply? Soil students and horticulturists agree that of the eleven or more chemical elements necessary to plant life only three-nitrogen, phosphorus and potassium-are present in soils in such small quantities that they often may become limiting factors in the growth of plants. These three elements are provided by so-called "complete" chemical fertilizers and are given in the fertilizer analysis as nitrogen. phosphoric acid and potash. The proportions which vary with the purpose of the fertilizer are stated in numbers by the fertilizer men. For instance, 1-2-1 would mean a fertilizer containing 1% of nitrogen, 2% of phosphoric acid and 1% of potash.

Special Ration for Trees

A complete fertilizer may be "balanced ration" for one crop but not for another. With trees, the "balanced ration" must be particularly high in nitrogen. The fact of the matter is that an application of phosphoric acid and potash to trees has so seldom been of benefit that their presence in complete fertilizers for shade trees should be in limited quantities, for it is only in unusual cases that they will have any distinct value.

A number of factors influence the lack of response of trees to phosphorus and

potash applications. For one thing the chemical make-up of tree tissues is different from that of most farm crops. Trees are able to absorb minerals over a longer period of time than annual crops, and because of their somewhat deeper rooting habit it is possible for them to feed in the lower mineral containing layers of soil which are denied to the shorter lived plants and which hold but little nitrogen. It is known, however, that some of our native forest soils which have produced. and are still producing, excellent stands of timber, are low in available phosphorus when these soils are judged by their need of phosphorus for other crops. Quite a good many species of shade trees have been shown to respond readily to applications of nitrogen only while they are growing in soils containing negligible quantities of phosphorus for general agricultural purposes.

It may be readily seen, then, that many of the commonly used general fertilizers applied in quantities recommended for lawns or gardens cannot possibly supply shade trees with enough nitrogen. If, to build up the nitrogen supply, these fertilizers are applied in large quantities, the procedure becomes wasteful in view of the unnecessarily large amounts of phosphorus that will be given. For example, a 4-12-4 mixture while beneficial in proportion to its nitrogen content is certainly not an economical shade tree fertilizer. Instead, a well balanced shade tree mixture should contain at least two and preferably three times as much nitrogen as phosphoric acid or potash.

Two Forms of Nitrogen Needed

It is not only important that tree fertilizers should contain large proportions of nitrogen but careful consideration should be given to the materials that are used to supply it. The general belief is that plants can use nitrogen to best advantage in what is known chemically as the nitrate form. And although this is true, the disadvantage arises that under certain soil and moisture conditions nitrate nitrogen is readily leached out and may be lost to the tree. Because of this situation, nitrate nitrogen should not be used entirely. Instead, other more slowly available forms must be employed as well.

These other forms of nitrogen are changed over to nitrate or available nitrogen by the action of bacteria, and the activity of these bacteria is in turn influ-

enced by several factors of which a chief one is temperature. For example, in cold soils the bacteria are not at work, and in extremely dry soils their helpful action may be checked because the surface roots cannot absorb the nitrates. So it develops that even with a fertilizer made up of both immediately available inorganic and a more slowly available organic material, certain conditions may occur to check the supply of nitrogen that is available to the trees. Often this fluctuation in nitrogen supply can actually be followed by watching the changes in color of the leaves of trees growing in soils of limited fertility during prolonged and extremely wet or extremely hot and dry periods in midsummer.

September Tells Story

Fortunately it appears that trees are able to take up and store nitrogen beyond their immediate needs. Experiments conclusively show that well fertilized trees retain their rich, dark green foliage during unfavorable seasons when the foliage of similar trees with a limited food supply lose their color and beauty. In the spring well fed trees obtain their normal color earlier than do unfertilized trees and in the fall they stay green longer and hold their leaves later.

While it is relatively easy to have beautiful treees in June when growing conditions are usually at their best, the actual test is really the condition of your trees in September, following perhaps a dry, scorching summer such as we had in 1930. The fact that well fed trees retain their foliage several weeks longer than do undernourished trees is of importance to those interested in golf, because it means that well fed trees tend to prolong the golf playing season, by avoiding the nuisance and annoyance of the early falling leaves which so frequently litter the greens.

But feeding trees cannot be looked upon as a general panacea, for it does not prevent the attacks of insects, diseases and certain other troubles with which trees must at times contend. Neither will an occasional or half-hearted attempt at feeding restore the beauty of a long-neglected tree. However, when a complete and skillful diagnosis of a declining tree discloses no parasite responsible for its unfavorable condition, thorough annual feeding usually results in an improvement that is definite and in many cases quite striking.

The illustrations that accompany this article tell the feeding story much better



Here are two views of the same walnut tree. Photo on left was taken in 1927 just prior to fertilization. The other photo shows how well the tree has responded by 1930 to the treatment

than it can possibly be told with words. The before and after pictures of the large walnut tree are deserving of attention in view of the fact that the last picture was taken in August 1930, which was along toward the end of the driest season ever recorded in Ohio. In spite of the most trying weather conditions the tree showed remarkable improvement without the aid of artificial watering. All through the parched and rainless days of August and September this tree held up to the sky great masses of refreshing, unscorched foliage, while other unfed trees in the same locality were in a desperate condition.

English Heads Connecticut Club Managers

CONNECTICUT Chapter of the New England Club Managers association at its annual meeting held at the Wampanoag C. C., West Hartford, elected the following officers to serve for 1932:

Pres.—Stuart English, Wampanoag C. C.; V. P.—J. J. Flynn, Farmington C. C.; Treas.—L. F. Chevers, Racebrook C. C.; Sec.—George E. Broadhurst, Sequin G. C.; Auditor—Thomas H. Lloyd, The Country Club of Springfield, Mass.

Trustees elected: George K. Schwind, University Club, Hartford, and I. R. Fish, Shuttlemeadow C. C.

The meeting was preceded by a dinner

and followed by a lengthy discussion on matters pertinent to club management.

George Broadhurst, the new secretary, has served as manager of the Sequin G. C. for the past two years. Previous to this connection he managed the Elm Tree Inn of Farmington, a fine old hostelry dating back to the days of the Revolution.

Night Golf Events Go Big at Oregon Club

A S A NOVEL feature of a stag evening. the Grants Pass (Ore.) C. C. recently tested after dark the skill of those present at approaching, putting, driving and playing explosion shots. A light was placed in the cup. In the approaching contest. players shot from 100 feet.

Women's Committee Activities Big Factor in Live Clubs

By BETTY BURTON

DASEBALL EMPLOYS its Judge Landis, the Professional Golf association its Albert Gates and the Women's Western Golf association has its mediator in the person of Mrs. J. E. Neff, of South Bend, Ind., to whom unusual points of play are referred and on which she gives rulings without the monetary return the above mentioned gentlemen receive. The women golfers recognize her fairness on all questions and accept her decisions, making it unnecessary to refer to the officers of clubs to solve knotty problems. There are many other matters, however, in which the women depend upon the men for co-operation.

With the number of women in the golfing field increasing annually and the standard of their golf reaching a new high level, there is greater need for co-operation among the men's and women's division of the clubs. In recent years the officers of clubs have given the women more latitude and in most instances they run their own department independently of the stronger sex, with the men making a certain allowance for the purchase of prizes, granting certain days throughout the season when the women may have guests to further clutter up the landscape with struggling females.

In the Chicago district the officers of many clubs further co-operate with the women by granting them open days on which the Chicago District Women's Golf association schedules one day tournaments. Playing on different courses tends to improve the player's judgment of distance and gives her a variety of shots to make.

With the sun-tanned fashion, the demand for sylph-like figures, the youthful look sports clothes give and the necessity of playing the game in order to be "in the know," all in addition to the benefit derived from the health giving qualities of the game and the sportsmanship it develops, women recruits for the past several years have surpassed the number anticipated. Efforts are constantly being made to encourage the less courageous ones to build up their game.

In the handling of this army of golf club wielders there must be co-operation used in order to keep the works moving smoothly. Allowing women members almost unrestricted use of courses during the week and permitting play over the week-ends after certain hours has been a great aid in increasing the number of women players, now fast outnumbering the men players. Formerly it was the custom for the chairman of the men's events to appoint a woman chairman for women's events for the year, but at the majority of clubs now the women are given the privilege of electing their own chairman. This is generally considered quite satisfactory as women usually chose one of their comrades, not for her popularity but rather for her capability to fill the trying position. It requires a woman of judgment, tact, discretion, knowledge of the game of golf, an understanding of the temperament of the dif. ferent players, and most particularly a sense of justice to conduct women's play smoothly at any club.

The mixed foursomes, however, are usually under the direction of the men. These events are held on Sunday afternoons once a month throughout the season in some clubs; in others on the afternoons of the Memorial Day, Fourth of July, and Labor Day holidays. Numerous clubs have inaugurated a method to get the members out by having a mixed foursome event on Thursdays in August followed by dinner and dancing in the evenings.

Now at many clubs women golfers are restricted to certain hours on week-ends when the mighty lords of all creation come out in full force, but that problem is solved at Medinah, Lincolnshire and Olympia Fields in the Chicago district by having entirely separate courses for the women to play on during those days, while the mighty male is digging his divots.

As the women gradually improve their golf a ruling might be put into effect that



one hose that stays at work

You will have replaced a large part of your present grounds equipment a few years from now. But there is one item of club property you can count on staying with you and that is hose from Goodyear. With care you cash in on the usefulness of Goodyear Emerald Cord Hose for years to come.

This de luxe Goodyear hose puts a stop to frequent re-purchass of club hose. It ends trouble with hose that leak or burst or go to pieces under the effects of sunlight. It replaces the unsightly appearance of ordinary hose on club grounds with an article of sparkling modern style-green in color.

Goodyear has built this quality into Emerald Cord Hose to save your money. Only the finest materials are used—double braids of double-double cord—a tough flat-ribbed cover to stand scraping and dragging—a rugged and supple structure to hold sprinkling pressures season by season.

Naturally Emerald Cord Hose has a slightly higher first cost. But the savings it brings many times repay investment. From your dealer, or just write to Goodyear, Akron, Ohio, or Los Angeles, California.



GOLF CLUB HOSE

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would stimulate both sexes to reduce their handicaps. Say, by way of example, that women with handicaps from scratch to 8 were permitted to play on the course at any time, those who were conscientious enough to get into that class would certainly inspire a male sharp shooter with a 24 handicap to reduce his to within firing distance. To accomplish this he would surreptitiously go to the "pro" and try to correct faults which prevented him from scoring well. This is only a suggestion and might be tried as a means of reducing handicaps. Various changes have been made in the golfing curriculum in the past few years, even to the extent of playing a different ball in 1930, 1931 and 1932. If the handicap plan suggested does not work it can be easily discarded, and no one will be hurt, though the pride of some male members may be injured.

Midlothian, one of the oldest clubs in the Chicago district, last season overcame a condition of women's golf which had existed there for many years. In 1930 there were only a couple of women members who really played above an average game of golf. Many were losing interest and the others could not be induced to play. James Creavy, chairman of men's events, attempted to attract more women to the golf course, and satisfy the majority of members, husbands and wives jointly.

In 1931 many of the precedents set in former years were violated. There were inaugurated such revolutionary measures as having no A, B and C classes and allowing no limit to handicaps. One woman carried a 125 handicap. Many of the beginners found 18 holes too much for one day so Mr. Creavy cut their events to 9 holes. However, the better players were privileged to play the full 18 and use the better nine for the day's score.

Golf in Large Quantity

A bit of tenacity of purpose was shown by one energetic beginner who played the full eighteen holes at the opening of the season with a score of 318. One thing which marked the calibre of this woman was the fact that she conscientiously recorded every "fan." I am not informed who the bookkeeper was. Undismayed by this alarming count, which equals approximately 72 holes with an average of 79 strokes a round (enough to tire a seasoned player) she was determined to cut down her score and by the end of the season was shooting an average of 120 for eighteen holes.

On Fridays there were three prizes offered, the first for low net, the second for 10th low net, the third for 15th low net, thereby distributing the prizes rather than rewarding the best golf players. In a match one of the better players was compelled to give her opponent 4 strokes a hole, and lost one up. This arrangement works a hardship on a real golfer and rather discourages than encourages play. ing golf in the true sense of the word. Mr. Patterson, the conscientious pro, stood by aghast.

More women attended last year than ever before in the history of the club so Mr. Creavy told us. Mrs. J. Edward Mc-Mahon, chairman, handled affairs so admirably with the majority of women who competed in the events and so much to the satisfaction of Mr. Creavy that she has been reappointed to that position for the year 1932.

Since the officers of most clubs allow the women to handle their own problems, a word might be said to the managers in regard to supplying the proper kind of meals for the golfers who wish to keep their handicaps as well as their hips down. Plain, wholesome food at moderate prices would satisfy the athletic woman who finds it difficult in many clubs to get the nourishment she craves. Fancy desserts with an abundance of whipped cream containing many calories usually are served. Why not cater a bit to the athletes?

Into the locker-rooms, the place to which the tired woman golfer turns after her round, a few items may be placed which cost the club little and contribute a lot of comfort to the women. Cold cream, tissues for removing cream, sunburn lotion. listerine, witch hazel, pins (straight, safety and hair) and powder with little cotton balls for applying are a few that would be useful. It is presupposed that there are plenty of clean towels and soap at all times. A competent locker-room attendant can do much to make the women habitués happy. It is only spoken in sotto voce that set-ups are served the women, but if a small room off the locker-room were available this nineteenth hole performance could be attended to without offending conscientious objectors.

SINCE SAND in traps constantly washes down toward the lowest point in the depression, raking should be started at this low point and carried out to the trap margins.

Pro Merchandising in 1932 Demands Early Planning

By ELMER BIGGS Pro, Peoria (III.) Country Club . Chairman, Merchandising Committee, P. G. A.

PROSPECTS FOR 1932 golf business indicate that next year will provide a real test for the up-and-coming pro. Those who have successfully coped with their problems this year have advanced far enough in their business operations to have no fear of what the new year will bring. At the same time, no professional can hope to have things run along profitably without deep study and selling energy in 1932.

The man who was able to sell his merchandise and instruction during 1931 found how well success in both departments went together. Neither merchandising nor tutoring can be neglected. Any pro who, in 1931, reduced his stock to a minimum at the end of the season and paid his accounts promptly, will be able to buy at advantageous prices 1932 merchandise that probably will be considerably different in design from the 1931 stock. He will be sitting in the driver's seat.

Due to a sluggish movement of golf merchandise the latter part of the 1931 season the condition among the stores that compete with the pros for business is not good. Most of these stores loaded up with goods at almost liquidation prices. They are carrying a lot of this merchandise still and will have to offer it at very low prices to compete with the pros' fresh stocks. This condition makes the pros' business highly attractive to the manufacturers and already has been responsible for a marked improvement in many manufacturers' pro policies.

How Far to Cut Prices?

One of the big problems for the professionals and the Merchandising committee of the P. G. A. is to determine just how far we can safely go in meeting the cut prices the stores will have to offer to move their frozen inventories of old goods when the 1932 season begins. In my opinion we will have one of our crucial tests as merchandisers when we are confronted with this serious problem of balancing price and quality. We want to keep the cost of good golf down to the player but we also realize that the golf business to flourish must have a profit margin for the manufacturers as well as the pros.

I think that some of the manufacturers may misunderstand the pro position on prices, so it may not be amiss to repeat the idea that the representative successful pro merchants have expressed. The pro has no objection to the manufacturer mak ing money. But the pro wants to make some money too, and pro profits in these times are precarious. As a matter of fact. pro profits never have been any way near the point the public considers them to be What the pro does want is an even break on dealer discounts. The pros' individual purchases may or may not be as large as those of the stores, but it can not be denied that pro push makes the market for golf goods and the advertising value of pro endorsement, stocking and sale merits an equalization in discounts.

Less is being heard of criticism about pro credit. There is evidence that pro credit is improving and from what I hear pro credit today compares favorably with that of other small independent retailers. However, the pro who does discount his bills still has to carry too much of a load of the credit delinquencies of pros who are tardy about paying. Business education. the pro employment situation and the policing of the leading pros is correcting the credit situation nicely. Another factor promises to exercise an influence in this respect. I am informed that some of the manufacturers are going to make attractive discounts on a C. O. D. basis, and not sell pros whose credit is not right.

I have held the suspicion that this credit situation for which the pros were being entirely blamed by the manufacturers, was something in which the blame should be

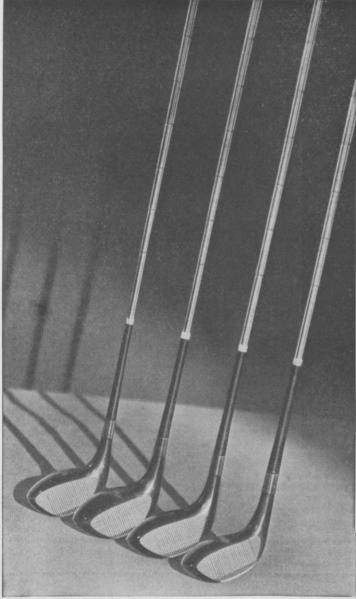
And NOW THE SPALDING ROBERT T. JONES, JR. WOOds!

LAST MONTH, we announced the Spalding Rob't. T. Jones, Jr., Irons. This month, we have the thrill of announcing the new Rob't. T. Jones Woods—and of telling the Professionals of America that they are as outstanding in Woods, as their brothers are in Irons!

These Woods are designed after Jones' original clubs. They feature the new shaped sole which conforms to the arc of the player's swing. The face is deep but it avoids that clumsy look which so many deep-faced woods have. Inserts of different colors in the soles of these clubs make identification easy.

There's the usual pair, set of three, and set of four. But that's not all. For Jones, now a Spalding Director, in collaboration with the Spalding experts has worked out the new SENIOR WOODS, in a set of five! How golfers who now have trouble with their long iron shots will go for *this* set! It consists of Driver, Brassie, Long Spoon, Mid Spoon and Baffy Spoon—skillfully graduated and beautifully matched.

All these woods are steel-shafted, with the famous Cushion-neck feature. All are Registered. And all are marked at much lower prices in keeping with the times, and with our determination to make these the easiest-tosell clubs ever offered to the Professional!



NEW SHAPED SOLE

These new clubs—the Irons, the Woods, and the Calamity Jane Putter, offer you a really great opportunity. And what a time for it to come! ^{© 1931.}

G.Spalding & Bros.

about equally divided. It can not be denied that credit control is completely within the province of the manufacturer. There are extenuating circumstances now and then when a good pro can't pay. That must be appreciated by anyone who views general business today. But when a pro, or an alleged pro, has no background for being granted credit, it has seemed to me a manufacturer is not compelled to sell this man, and then condemn the entire profession because the account is slow or uncollectible. I am very much of the opinion that if the manufacturers would do some thinking about a policy along this line, instead of harping about pro credit, a great service would be rendered to the pros who are real business men.

Pros Increased Unit Share

In 1930 the pros disposed of about 60% of the dollars and cents volume of golf goods sold and about 45% of the unit volume. This year, due to the slump in the cheap junk sales, I believe the pros' unit volume percentage of the market will be about 50%. What the unit percentage will be in 1932 depends a whole lot on how many professionals who are wide-awake merchants can get attached to good municipal and fee course jobs.

With the pro volume what it is it seems to me that the manufacturers must give serious consideration to working with the pros on a basis of mutual profit and understanding. One of the big developments in the pro business during the last several years has been a marked change in pro temperament. Now, when a pros' sales are not what they should be, the good pro figures that the fault might be with him, rather than with other factors, although other factors may have considerable bear. ing. It appears that the manufacturer who complains of pro relations might subject himself to the same sort of analysis in which the party of the first part would come in for correction before the other elements were pronounced guilty.

However, there has been great improvement in the relations between the pros and manufacturers that undoubtedly will be reflected in 1932's work. The astute professionals will be buying cautiously in 1932, purchasing only that merchandise that can be sold with an application of good selling effort. The wise pro will capitalize on the manufacturers' advertising and other sales helps. He will not buy loosely because the salesman happens to be a good personal friends of his. There will be a premium

on neat and attractive shops and alert service methods by the pro and his assistant. The basis of the correct approach to the 1932 selling problem will be a simple one; the realization that the pro's custom ers are limited to his membership and that membership holds the pro to strict accountability as a man who should know his business. For that reason the pro must be governed primarily by value rather than by low price in his selection of goods. The plight of the stores has shown the pros that low price alone isn't the answer to the merchandising problem, and certainly should be a warning to the pros who may be thinking that cheap goods is the assurance of big business and profits next year.

Lewis Named Secretary by Club Managers

HERMAN A. LEWIS, for seven years manager of the Wilmington (Del.) C. C., has been named secretary of the Club Managers' association of America, succeeding Henry R. Dutton, who resigned from his active responsibilities Nov. 1.

Lewis has been manager at Wilmington for seven years and previously was with



H. A. LEWIS

clubs and hotels in the Philadelphia district. As the 1932 convention of the Club Managers will be held at Philadelphia in February, Lewis' convenient location will permit him to handle the details of convention preparation with close application.

The Philadelphia Club Managers' association, headed by Joseph B. Uhler, will entertain the annual assembly and is intent on staging the most successful meeting in the organization's. history.