#### **APRIL**, 1939

or during excessively hot, humid weather when accompanied by frequent downpouring rains.

At times in mid-summer when grass looks sickly and algae (green scum) appears on surface of water-logged areas light applications of lime usually prove helpful. Hydrated lime is often preferred because of its greater solubility. Only light rates can be used, 2 to 8 pounds per 1,000 square feet, and immediate watering to prevent burning is essential. Exceeding ly fine ground limestone is almost equally effective and safer if fertilizer containing ammonium sulphate was used during the preceding week.

The following table is offered as a guide for estimating quantity of lime needed on greens. Indicated rates are pounds per 1,000 sq. ft.

LIME REQUIREMENTS OF GREENS

Lbs. Ground

Soil pH	Degree Acidity Degree Acidity Degree Acidity Degree Acidity	
4.0 to 4.5	very strong plus to very strong 60-80	
4.5 to 5.0	very strong to strong	
5.0 to 5.5	strong to medium	
5.5 to 6.0	medium to slight10-20	
6.0 to 6.5	slight to very slight 0-10	
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When pH readings indicate need for lime, tests for soil content of available calcium and magnesium are helpful in deciding upon rate of application and type of lime to use. When both are reasonably high, the lower recommended rate will suffice even though pH approaches the lower limit recorded in the first column.

Ground limestone can be applied at any of the recommended rates without danger, but this is not so with hydrated lime. It is caustic, so not more than 20 to 25 lbs. per 1,000 sq. ft. can be applied at one time even in spring or fall. When more is needed split applications are advisable. In summer even 20 lbs. may scorch the grass, so rate should not exceed 5 to 10 lbs. Immediate watering to wash it into the soil is advisable.

In conclusion, a word of caution regarding the use of lime and any fertilizer containing nitrogen in the form of ammonia. These materials react with lime, liberating gaseous ammonia which is extremely toxic and may scorch or kill grass, or it may escape into the atmosphere. With hydrated lime the reaction is almost instantaneous, but it may occur with ground limestone also. Hence at least 7 to 14 days should elapse between the use of lime and fertilizer containing compound of ammonia. This applies to commercial mixtures containing ammonium sulphate, ammo phos, etc., as well as the pure materials themselves.

# MANAGERS REVIVING EPICURISM

ONE of the greatest achievements of country club managers in 1938 has not been given extensive recognition by officials or members of golf clubs, although the feat of the managers has had definite effect in bringing about a revival of country club distinction other than that based on expense of membership.

This notable feat has been the great performance in bringing about a rebirth of epicurism, although the epicures of food and drink are still so rare that their presence may be known only to the observant managers of their clubs.

The sad truth is that in this land of abundant food the fine art of eating has deteriorated sadly so there's not one wellbred young man of 30 years or so, among a thousand of his class, who knows much more about cuisine than to know whether a steak is tough or tender, or who knows any more about liquors than could have been learned during speakeasy days.

#### Not Matter of Money

What's going on behind the scenes to educate these young people and their parents, makes one of the most interesting stories in the chronicles of upper-class living today. The matter of education in epicurism is not primarily a matter of money. The average Italian or German family of limited means eats much better in the United States than does the very well-to-do American family.

To show back-stage views of how talented managers are pondering over the problems of human relations, finance and mastery of the culinary and liquid arts in order to serve their clubs better by cultivating a new breed of the old-time "prominent clubman" we reprint some extracts from the excellent "Bulletin" of the Metropolitan Club Managers' Assn. of the New York Metropolitan district. This Bulletin is edited by Adolph Koenig, mgr., Fairview CC, Elmsford, N. Y. It's impossible to make an appraisal of the value of this Bulletin in dollars-and-cents to the clubs served by the MCMA members, but after one reads a year's files of the publication, it's easy to believe that the Bulletin is worth many thousands of dollars "I have been surprised, constantly, at the high calibre of men greenkeeping has attracted despite its uncertain financial rewards. When the prosperity cycle returns, the constant though often unappreciated striving for advancement that these greenkeepers are making, certainly should receive a deserved reward."

Vernon Stoutemyer

(Formerly Director, Iowa State College Greenkeeping Short Course.)

•

to clubs in the New York Metropolitan territory.

Note this tip on the value of specialties: Is your Club known for certain specialties, that have found acclaim with your members? If not, why not try to create some. It may be a drink, which your barkeeper makes to perfection, or one or more dishes prepared in a unique manner, which ultimately will arouse the enthusiasm of your patrons. A tureen of some special soup or chowder, an Indian dish, a seafood platter, a combination grill, a Southern chicken course, a fancy dessert or even some plain muffins or pancakes, if consistently made alike and appetizing, will sooner or later catch the fancy of your members and enhance the name of your club. Try it.

In the Questions and Answers department, there's a wealth of expert dope. For example:

There is quite a variety of cold soups with which you can change your summer menus: cold consomme, Russian bortsch, madrilene, clam broth with unsweetened whipped cream, strained gumbo, strained bisque of lobster, jellied chicken broth, essence of celery, turtle soup with sherry, cream of barley, oatmeal or rice, etc. While on the subject, we may mention that cold sweet soups are very popular on the Continent, but little known here. The French make a cold wine soup, consisting of vin ordinaire (red or white), raisins, almonds en julienne, and stale brioche or toasted rolls.

#### Swiss Like Sour Milk

The Germans feature a "bier kaltschale" made with lager beer, tiny macaroons, sliced lemon and cinnamon. Cold cherry soup is made by stewing pitted sweet and sour cherries with plenty of water, lemon, cinnamon, two cloves, sugar and slightly thickened with cornstarch, then iced. Many restaurants in Switzerland feature plain thick sour milk, served with sugar and cinnamon. The Englishman likes his barley water, which is plain barley boiled in water until mushy, with salt and a pinch

of sugar. After straining and icing, it is diluted sufficiently and served in special pitchers with sliced lemons. In America at present tomato juice is probably the most popular cold "soup."

Another answer to a query treats of a phase of menu-making that is frequently and flagrantly mishandled:

In composing menus for ordinary dinner parties, a few plain rules must be observed, as—

If you start with fruit, (coupe, cocktail, melon, grapefruit, etc.) see that the dessert contains no fruit or a fruit-sauce. If you serve a cream soup, see to it that it is not followed by any course with a white sauce. A brown soup (mock-turtle, pottage, pierre le grand, puree of any game, etc.) must not be succeeded by another thick brown sauce. Likewise a soup of any vegetable should not be followed by any dish containing the same vegetable, as when serving cream of mushrooms, eliminate mushrooms from the rest of the menu; do not serve a beef broth and follow up with any beef dish, (oxtail, pot roast, prime ribs, etc.). The same rules apply to all other meat and poultry dishes. When serving a fish course, do not precede it by a fish soup, except on special occasions, as clam bakes, shore dinners, etc.

If all courses are hot, follow by a cold dessert; if one or two courses were cold, serve a hot dessert (souffles, charlottes, puddings, beignets, crepes, etc.)

#### Never Repeat Same Dish

The fundamental idea is: Vary as much as possible in the selection of the dishes, and never repeat or serve the same ingredient twice! Your submitted menu is all right, if you change your dessert, creamed rice with pears a la diable, since you have already rice in your chicken gumbo a la creole. If your dessert is served by special request, then strain the gumbo, so the rice will not show in the soup.

The managers have one of the hardest problems any artist meets when they are confronted with the job of contending with competitive club prices. Here's an inside on a manager's problem as taken from the Bulletin:

### HOW DO THEY DO IT?

A well known and old established country club in Westchester recently sent out its monthly circular, in which amongst other things, it urged the members to patronize their restaurant and printed the following menu as a sample of their dinners:

Chilled Cantaloupe Fresh Fruit Cocktail Cherrystone Clams, Shrimp or Crabmeat Cocktail Tomato Juice

Celery Hearts Green Olives Consomme Brunoise Chicken Okra Soup

Fried L. I. Scallops with Bacon, Tartar Sauce Soft Shell Crabs, Sauce Remoulade Fresh Lobster Thermidor Chopped Sirloin of Beef, Smothered Onions Grilled Sirloin Steak, Club Style Grilled Lamb Chops on Toast Assorted Cold Cuts

> Asparagus, Butter Sauce Baked or Long Branch Potatoes

Lettuce and Tomato Salad, Thousand Island Dressing

Apple, Blueberry, Rhubarb or Cherry Pie Indian Custard, Rice or Chocolate Pudding Preserved Figs Roquefort, Camembert Cheese and Toasted Crackers Bisquit Tortoni or Ice Cream

Coffee Postum Tea Milk

The price of above dinner was advertised to be-well, what do you think? At a round table meeting of well-known stewards and chefs, each one took pad and pencil and figured it out: food cost, overhead, wages for cooks and waiters, laundry, etc., bearing in mind that club cooking had to be considered, not hash-house catering using only canned stuff, and the average price arrived at from eleven professional experts was \$1.47. This, of course, to be net cost. The club's price, as advertised, is: \$1.00! There is, naturally, the possibility that the house committee desires to bring the members to the club and uses the abnormally cheap dinners as a bait, having in mind that the profits of the bar will offset the loss in the restaurant; still, the whole thing shows the utter futility of comparing club statements and, furthermore, the uneconomical means which some clubs feel compelled to employ in these days to secure their members' patronage! Alas!

Here's what the Bulletin says about the problem of developing epicures:

Give special care to your private parties. As a matter-of-fact, a good club manager likes above all, although it involves much additional work on his part, to cater to members who show a discriminating taste in the selection of their menus. Why? Because he has the inbred, European trained, traditional grudge against, what is called in the parlance of the street: Bean-wagon or Hash-house food.

#### Culinary Art Most Noble, Ancient

His ideal and conviction is: that a fine club's kitchen is and should be a repository for classique cooking, a sanctuary and a fortress for the most ancient, the most noble and the most useful of all the arts: the culinary art! But, alas, much pioneer work is necessary to imbue the nephews of Uncle Sam with the understanding of the joys of the table. Here in our land of plenty, over which a cornucopia has been emptied, where the seasons have been obliterated, where we have strawberries and asparagus in mid-winter, we have also an indifference on the greater part of the population towards eating, which is as appalling as it is disheartening. The typical American, in his pursuit, not of happiness, but of the fleeting dollar, often considers eating a time-wasting procedure and rushes thoughtlessly through the ceremony of replenishing his inner man like one possessed. And since the master of the house cares so little about eating is it to be wondered at that his good lady is still more ignorant in the fundamentals of gastrosophy? Her dining room may have been designed by the Hampton shops, her linen may be faultless, her floral decorations exquisite, the silver may be solid and strictly "period," the china "Sevres." the glassware sparkling crystal, her butler English and six foot tall; and still - her food is often noticeably inferior.

Why? The answer is complicated and far beyond the scope of this little talk. But some day, we may delve into this subject and turn the spot-light on one of the arch-enemies of good cooking—the "Household Page" in the magazines and women's periodicals, where they advise newly-wed housewives how to make coffee cake with canned tomatoes! Hell's Kitchen! Let's return to our pets—the Gourmets.

When they order a party, giving the manager "carte-blanche," what joy they bring to our hearts! We search the markets, we scan the offerings of the purveyors. We compose a menu which we hope would bring a nod of approval from Master Escoffier. We instruct chef and headwaiter and bartender; we never cease The department of agriculture recently estimated that the economic value of insect-eating birds to the nation's farmers is more than \$350,000,000 a year.

to work on that dinner until it becomes a realization. Then, with the guests satisfied and the host pleased, we are content. So is our staff They, too, take pride in their accomplishments, in the help which they rendered to make the meal a success.

#### **Catering Made Easy**

And do not let us overlook the co-operation of our purveyors. Luckily there are houses, renowned from coast to coast, whose superb merchandise makes catering easy. One finds in New York's markets the delicacies of the four corners of the globe, an abundance of variety of food, the yield of the ocean, the lake and the river; the field, and the garden, the farm and the forest and the meadow is spread out in our great supply houses for our selection, kept there perfect by ultra-modern means.

Philosophically the managers view their Sisyphean task of trying to satisfy all members. On this topic the Bulletin comments:

There are many other incidents which prevent the manager from being bedded on roses. The yearly change of officers and committee chairmen presents an everpresent problem, because no matter how successful and efficient the appointed member may be in his own business, as a rule he is a novice in guiding the destinies of a club, his mind loaded with fads and fancies, which he is eager to inflict on the the manager, not knowing, that probably most of his "new" ideas have long ago been tried and discarded as detrimental to the best interests of the club. It is a funny world; a member in need of a suit will see a tailor, for shoes he goes to a shoemaker, for legal advice to a lawyer; in short he consults an expert for his wants. Only when it comes to run a club restaurant does he feel he knows more than people who made this their life's profession.

Often his arbitrary orders have disastrous results, for which the manager has to shoulder the blame and keep silent, in order not to appear disloyal to his chairman. Many are the occasions where he must thus act as shock-absorber between board and membership and pilot his boat between Scylla and Charybdis. Hardly a day passes without bringing new

problems: There is the bargain hunting lady, who wants to give a Ritz-Carlton luncheon, but pay Automat prices; the member, whose doctor has put him on a milk and egg diet, scolds over what he calls the "too elaborate bills of fare," while the rich gourmet expects the season's choicest tid-bits on his club's menu and boils over because terrapin and canvasback are not on the carte du jour. A manager may have served hundreds of private dinners to perfection, but let him slip on a single one, forget perchance certain flowers in the decoration of the table. and all former praises and laudations are instantly forgotten and an avalanche of criticism descends upon him.

But we need not enumerate all such occurrences, which are only too well known to us. Woe to the manager who cannot sooth the frayed nerves of the hostess smilingly and tactfully!

## Personal Items Feature Lively Club Magazine

ONE of the standout golf club magazines so far as personal items are concerned is the Hillcrester of the Hillcrest CC (Kansas City district).

Plan of the magazine committee is decribed by Wolf Rimann, pro-mgr. of the club, as follows:

"Once a month the Hillcrester's editor and I get together and go over the club roster trying to recall anything we have heard or seen about members' activities at the club or elsewhere.

"The women have a publicity committee that digs up considerable material. Women often are more active on committees than are men. The men's magazine committee represents the various larger professional or business groups in the organization, such as doctors, lawyers, grain men, automobile and accessory men. Of course there also is representation of the fellows who are not members of some major occupational classification.

"It's essential to have an editor who really has a keen interest in club affiairs and the magazine, rather than a fellow who will regard this task as just so much added work. The Hillcrester is run as part of the fun of belonging to the club, hence its lively character and wide interest."

# SOIL AND ITS RELATION TO PLANT GROWTH

#### By Clayton O. Rost University of Minnesota\*

THE scientific study of the soil began in the laboratory rather than in the field. As a result soil was not at first regarded as an independent body but more or less as a material which afforded anchorage for plants and a reservoir for the water they needed. Morphological characters such as color, structure, consistency and texture received little or no consideration.

Early in the 19th century scientists began to be interested in the classification of soils. By this time it was evident that the mineral matter of the soil contributed to the nutrition of plants. Observations had shown that soils differed in respect to the growth of different crops upon them, and this centered attention on certain physical aspects of the soil. It attracted the interest of scientists to the processes involved in soil formation and this has led to a much clearer conception of all aspects of the soils as an independent natural body.

As a natural body, soil is the product of a series of reactions, the most important of which we ordinarily include under the broad term of weathering. They include the physical, chemical and biological reaction which are responsible for the breaking down and weathering of rocks and minerals, and the creation, accumulation and destruction of organic matter. Besides these there are a number of agencies which have an indirect effect upon soil formation. These include the type of parent material and the topography and age of the land.

The amount and distribution of precipitation along with temperature will, to a large degree, determine the character and rapidity of the soil forming processes. The climate then becomes the controlling factor and while the parent material may impose some restriction on these processes, the genetic kind of soil arising under any given set of climatic conditions will be the same, regardless of the parent mater-

\*G.S.A. Convention Address.

ial when the time interval has been sufficiently long and the climatic conditions relatively constant.

Moisture and its movement through the soil is one of the most important of the climatic factors. Whenever the downward movement of water (leaching) exceeds the upward movement (evaporation and transpiration) the soluble products of weathering are leached downward and there tends to be a similar downward movement of colloidal material. This movement tends to remove certain constituents from the surface laver and to concentrate them in the subsurface layer where changes in reaction and physical properties either stop or delay the transported materials. Thus two layers or horizons are formed-a zone of removal at the top and a zone of concentration below. Underneath the latter is the unmodified or only slightly modified parent material. This means then that if we view a soil in cross section, as is possible in a road cut or excavation, there are three distinct lavers. These have been designated as the A, B and C horizons. The characteristics of this cross section, called the soil profile, form the basis upon which soils are now classified and mapped.

#### Upper Soil Most Favorable

In spite of the leaching action of downward moving water the upper or A horizon is ordinarily the most productive and best adapted to cultivation. This is due to the fact that near the surface conditions are most favorable for weathering and the mineral nutrients needed by plants form most readily. Here, too, conditions of air, moisture and food are most favorable for the development of soil organisms which play such an important role in soil formation and plant nutrition. Plant roots reaching into the deeper subsoil absorb nutrients and these find their way into the aerial portions of the plant where they eventually fall back or are carried back to enrich the surface layer. When a part or all of this upper soil layer is lost by erosion. not only the nitrogen, which is held mainly in the organic matter, but much of the more readily available phosphorus and potash is lost as well.

The supply of nitrogen in the soil decreases rapidly from the surface downward due in the main to the rapid decline in organic matter. There is evidence also that in many soils the subsurface layer or B horizon becomes depleted of much of the readily available phosphorus or potash, or both. In this zone roots draw

#### GOLFDOM

Despite the worst blizzard that Ames or Iowa had experienced for several years, approximately 50 greenkeepers and others interested in growing and maintaining fine turf 'mushed in' from Kansas City, Muscatine and other points throughout Iowa, Missouri and South Dakota to attend the annual Iowa State College greenkeepers short course, held March 1-2. Portion of the group attending the course, is shown in the above photo. Prof. S. W. Edgecombe, Extension Horticulturist at ISC, was in charge at the two-day meeting.

heavily on both moisture and mineral nutrients.

As long as the land was occupied by a natural vegetation, which grew up and at the end of its life cycle fell back on the soil from which it sprang, most of the nutrients drawn from the soil were returned to it. Under conditions of this kind plants actually prevented to a certain extent the loss of soluble nutrients by leaching and provided a revolving fund of food upon which each new generation of plants could draw. Upon decomposition of the dead vegetation the constituents released passed again into the soil to serve as food for the next or succeeding generations.

When man appeared on the scene and took over the land for agricultural crops the cycle was broken and too often little or no part of the crop was returned. Gradually the accumulation of nutrients built up by nature becomes so reduced by the removal of crops or by the loss of soil by erosion that nutrients must be added in commercial fertilizers if desirable crop growth is to be obtained.

The determination of whether or not there is an adequacy of plant nutrients, or in other words the determination of readily available nutrients, in the soil is not an easy matter. It is a problem which has occupied the attention of soil chemists for a long time. At first it was thought that if a complete analysis of the soil were made, any deficiencies could be noted and then supplied in the form of fertilizer. Plant nutrients, however, are held in the soil in two forms-a small part in readily soluble form, and a larger part in a difficultly available condition. A complete analysis gives both but does not separate them. Thus little information of value in respect to fertilizer requirements is obtained.

When the inadequacy of complete chemi-

cal analyses was recognized, attempts were made to extract the so-called available nutrients using extractants which simulated or imitated the plant. The extracting solutions were ordinarily dilute organic or mineral acids. The results obtained were much more promising, since broad correlations between the amounts extracted and the crop response to added elements were secured. The correlations, however, were not specific enough to permit them to be used to indicate the immediate fertilizer requirements.

#### **Testing Gives Useful Information**

In recent years the interest in soil testing by chemical means has been revived and much progress has been made. This has been possible because of our increased knowledge of the forms in which plant nutrients exist in the soil, the availability of these to plants and the means by which such forms may be extracted. When the tests have been calibrated for the particular soils of any given area much useful information may be obtained through their use. The proper interpretation of such tests, however, requires a knowledge of the fundamentals involved, and a background of experience which permits the consideration of the factors concerned.

The adequacy or inadequacy of nutrient elements in the soil will be reflected in the type of plant growth. Whenever there is an ample supply of nutrients to meet the requirements of the plants growing under any particular climatic environnormal plant growth may ment be expected. If there is a deficiency in one or more elements, growth is not normal and in case the inadequacy is great enough, it is evidenced by the occurrence of deficiency diseases. In the case of feed crops such deficiencies may be the cause of deficiency diseases in humans and livestock, when

#### **APRIL**, 1939

consumed to the exclusion of food crops grown on normal soils.

Such deficiencies may not be limited to the elements commonly supplied in commercial fertilizers, i.e., nitrogen, phosphorus, potash, and lime but may also include some of those generally referred to as trace or rare elements such as copper, zinc, manganese, cobalt and boron. It has been shown, for instance, that the black heart of sugar beets has been caused by deficiencies of boron. In some areas deficiencies of the same element, while not producing deficiency diseases in other crops, has restricted growth to a greater or lesser degree. The reason for designating these elements as "trace" elements is that only very small quantities are needed to meet the nutritional requirement of plants.

#### **Golf Gives Most Soil Problems**

Many of the soil problems common to agriculture are involved in the management and maintenance of golf courses. Here we have essentially a grassland agriculture but with certain special features not commonly involved in ordinary grass culture. On the fairways the soil, in the main, is as it was when taken over from other types of agriculture. All the common fertility problems are involved. Tt approaches most nearly the conditions met under grazing, since the nutrients removed from the soil are largely returned to it. The grass clippings fall back on the soil and much of the nutrient content eventually is available for plant use. Under such conditions one must make sure that there are ample amounts of phosphate and potash present in available form. These will then become less rapidly depleted than under a system which requires the removal of the crop. Phosphorus tends to form insoluble and unavailable compounds and this necessitates the application of a new supply in an available form. The primary consideration of fairway fertilization relates to an adequate use of nitrogen fertilizer. Unlike phosphorus and potash, nitrogen is not fixed in the soil and water moving through the soil leaches away any not used by the plants. Some is lost by volitilization into the air. The rapidity of the loss by leaching is related to the amount of percolation—the larger the amount of water percolating through the soil the more rapidly is the soluble nitrogen removed.

On the greens a different situation exists. In the first place the soil is especially prepared and fertilized so that drainage, texture and the supply of nutrients are optimum. Moisture is added as needed and the grass is regularly fed with fertilizer. In spite of this, far greater difficulties generally are encountered on the greens than on the fairways. A part of the trouble is due to the fact that special grasses such as the bents are used. The conditions under which they grow are very often far different from those under which they originated and grew naturally. Besides this the grass is kept cut extremely short and this offers the plants only a limited opportunity for the elaboration and storage of food materials. As such conditions are far from optimum the plants may be weakened or develop abnormally and not be able to resist diseases which attack them as well as they would in their natural habitat and under normal conditions of growth. There is the possibility that special fertilizer treatments may have some effect on the development of diseases by improving growth conditions and growth to such an extent that the effect



Group attending the eleventh annual short course in turf management held at Rutgers University, New Brunswick, N. J., February 13-18, is shown above. Approximately 70 attended the course, 68 of whom received certificates for faithful attendance throughout the entire week. The attendance at the course showed the following distribution from a geographical standpoint: New Jersey, 46; New York, 12; Massachusetts, 5; Pennsylvania, 4; Ohio, 1. Dr. Howard B. Sprague and Prof. Frank Helyar, director of short courses at Rutgers, were in charge of the course.

Ohio State U. golf course at Columbus, brought in \$20,000 in playing fees, despite low rates. The Buckeyes' golf establishment eventually will have 36 holes of such character that the university hopes to be host to the National Intercollegiate golf championship within the next three years.

of the disease will be lessened.

More and more land each year is being taken out of crop production and given over to golf courses. They are essentially parts of our agricultural industry which, like other parts of the same industry, has a great variety of problems peculiar to itself. These problems offer wide opportunities for research and in such research both the greenkeeper and scientist are involved. A satisfactory solution of most of the problems can be attained only through the cooperative efforts of these two individuals.

## 200 Attend Massachusetts Recreational Conference

THE job of getting and keeping a golf course in fine condition came in for the most attention at the sixth annual Recreational Conference held at Massachusetts State College, March 10-12. Over 200 greenkeepers and those interested in turf for recreational areas, attended the sessions of the conference. Six organizations, the Greenkeeping Supts. Assn., the New England, Rhode Island, Connecticut, Northeastern New York and New Jersey Associations of superintendents were represented at the meeting.

The initial event on the program was the graduation exercises for those attending the 1939 MSC greenkeepers short course. Roland H. Verbeck, director of short courses at MSC, presented the certificates. Gordon Haberkorn, Somerset Ridge CC, St. Paul, Minn., got the educational portion of the program under way with a paper on "Appreciation of Depreciation," which brought out the high cost clubs were having to pay for using worn or outmoded maintenance equipment. Other speakers at the first day's proceedings were Anthony J. Sperandio, Leicester, Mass.; Fred J. Sievers, MSC agricultural experiment station director; Myron S. Hazen, American Agricultural Chemical Co.; Joseph Ryan, retired president of the GSA; J. A. Gormley, GSA vice-pres.; Prof. Lawrence S. Dickinson, agronomy dept., MSC; Dr. O. J. Noer, Milwaukee Sewerage Commission; L. D. Gray, American Potash Institute.

The first day's program was concluded with the showing of two reels of movie film, and numerous colored lantern slides, by Prof. Dickinson. The pictures were taken during his tours in 1938, with a camera presented him a year ago by the alumni of the Massachusetts State College winter schools.

Dr. Hugh P. Baker, president, MSC, opened the Saturday program, speaking on "Cheering Prospects." The strong point Baker made in his talk was that "as long as we have the spirit of play and relaxation, there is little to be feared of political uprisings, or war scares." Dr. James Tyson, Michigan State College agronomist, was the next speaker, giving his observations on the influence of soils and climatic conditions upon the suitability of grasses for golfing areas.

#### **Treat Presented Gavel**

H. T. Islieb, Spring Brook CC, Morristown, N. J.; Wm. Mitchell, New London (N. H.) CC; Charles Parker, Wianno GC, Osterville, Mass.; Guy C. West, president of the R. I. Greenkeepers Club; and Dr. J. DeFrance, R. I. Experiment Station, also spoke on Saturday's educational program. During a program sponsored by the Greenkeepers Club of New England, celebrating the 15th anniverary of the founding of the club, a gavel, as a token of esteem, was presented Carlton E. Treat. Treat was the third president of the New England club, and is now maintenance manager of the Montclair GC in N. J. For the past few winters he has been assisting Prof. Dickinson in class work with the advanced school.

Edward Casey, of Westchester Co., N. Y., golf district, was elected 1939 president of the Massachusetts winter school Alumni assn. at the annual banquet Saturday evening.

The annual "Experts on Trial", held Sunday p. m., was the final event on the program. Dr. James Tyson served as "Chief Justice," and his benchmen were instructors Davis, Eisenmenger, Gunness, and Markusson of MSC, along with T. C. Longnecker, N. J. Experiment Station, Chas. Halowell, Penn State, and O. J. Noer. Carlton Treat was prosecutor and interrogator.

Much interest was shown in the annual course equipment and supply exhibition held in connection with the conference, and the report was that considerable business was transacted.

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# **Tank-Town Pro-ology**

Don Young, of Clewiston, Fla., in this issue concludes his comments on the ups and downs of a small-town pro

#### By Don Young

A SMALL-CLUB pro's success depends greatly on his teaching ability. Good teaching results inspire confidence, and that confidence is, as a matter of course, transferred into the selection of proper equipment and all matters dealing with the game.

I've found that selling lessons in series is by far the best policy. As mentioned herein previously, the small-club golfer is inclined to expect entirely too much from a single application. And it is the pro's job to overcome this fallacy.

In selling series lessons to beginners, convince them before they start that if they are able at the end of six lessons to understand and demonstrate the proper grip, stance, pivot, wrist positions and swing, they really will have accomplished something. Don't make the mistake of giving the lessons too close together unless absolutely necessary. Insist on plenty of practice between sessions, and make sure the pupil knows each step thoroughly before going further.

There's just one trouble with this "series of lessons" idea. If a pro has twenty or thirty of these subjects under way, he is very liable to forget just how far he may have advanced with each one individually. And nothing seems to ruin a pupil's confidence in his or her golf teacher any quicker than to meet that teacher for a lesson and have the latter confusedly inquire:

"Let's see now-what were we working on the last time you were here?"

### **Keep Record of Lesson Progress**

To overcome this bugaboo I use a ledger small enough to carry to the teaching field. I assign each pupil about ten pages in this book, and following each lesson enter exactly what took place, including the pupil's and my own reactions to certain points. It takes two minutes after each lesson to make such an entry, and at the same time you can be refreshing your memory by referring to the record of the pupil waiting. And it makes an excellent permanent record. Quite a bit of work? Certainly! But damned if I've ever discovered how to make money in this game without working.

That first "six lesson" series is mighty important to you. Bring it to a successful conclusion and you've sold six more without half trying. And the next six are gravy compared to the first.

Group lessons to youngsters are probably not so imperative to the small club as in the larger. By the time the small town youngster attains a productive age, so far as the pro is concerned, he is generally seeking his fortune in foreign fields. But some other youngster is probably locating in your community, so the scales are balanced. The free training, however, is a fine professional gesture and one sure means of expanding the scope of golf. Make golfers out of 'em when they are young and they'll generally stay golfers. Which benefits the entire industry. And provides fine training for the kids.

#### **Consider High School Team**

I have always tried to extend my free classes to include the possible formation of a high school golf team. If this can be engineered successfully the pro has really done himself some good. Reports to the contrary notwithstanding, gratis golf instruction, freely and pleasantly given, is not a loss. It always kicks back to you in some form or other.

Small golf clubs as a rule are notoriously under-financed. And the defect is worse in but one other department—administration of the club's business affairs.

And often the small town golfer has the erroneous idea that all is required to grow good greens is the planting of the right type of grass and a generous supply of water. And they operate on the basis of such an idea. When it does become apparent that a mistake in judgment has been made, the lesson seems to have no lasting effect. The blame will be shifted to some abstract fault and the same thing done over again.

Money spent on a golf layout that does not produce as near as possible 100% results, had just as well be tossed in the first water hazard. It is a complete waste because generally the entire job has to be done over completely.