



NEWS LETTER

Minimize friction and create harmony.

*You can get friction for nothing, but harmony costs
courtesy and self-control.*

—ELBERT HUBBARD

JUNE

1935

This NEWSLETTER is published monthly by the Greenkeepers Club of New England, and sent free to its members and their Greens' Chairmen. Subscription price ten cents a copy, or a dollar a year.

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June, 1935

Vol. 7, No. 6

R. I. FIELD DAY

H. F. A. North

The Sixth Annual Greenkeeper's Field Day was held at the Rhode Island State College, May 27th. The Greenkeepers have been enthusiastic in their support of this field day. The weather was particularly fine. A number of research men from neighboring colleges were present; a number of green committee chairmen attended in company with their greenkeepers; and exhibitors were well represented. Sprinklers, spike rollers and mowers were demonstrated.

The inspection of the experimental area is always an interesting part of the program. This year the killing effect of sodium arsenite spray treatments on the chickweed in old lawn turf was striking. A set of plats to compare grasses under heavy play planted in 1933 and badly worn in late fall of 1934 was severely injured during the winter and demonstrated the value of Kentucky bluegrass as a constituent in mixtures for this use.

After lunch in the college banquet room the speakers were introduced by Dean G. F. Adams as follows:

"Sports and Their Turf Requirements" by C. W. Perkins, Superintendent Yale University Athletic Fields.

"Cooperation" by Guy C. West, Greenkeeper, Fall River Country Club; President, New England Greenkeepers Club; and Editor, "Newsletter".

"Applying Experimental Results to Turf Improvement" by Everett Pyle, Greenkeeper, Providence Municipal Links.

The speakers all are greenkeepers with a practical knowledge of subjects which were discussed. Dr. H. J. Wheeler, early director of the Experiment Station, sketched briefly the advance in general knowledge of soils and fertilizers that has taken place since one set of lawn plats was planted thirty years ago. He mentioned that today the average progressive greenkeeper has a great deal better insight into the problems of soil fertility than the best soils specialists in 1905.

At the annual meeting of the Rhode Island Greenkeepers Club (the 6th) the following officers were reelected:

President—E. J. Pyle, Triggs Memorial Golf Course, Providence, R. I.; Vice President—H. D. Hall, Gloucester Country Club, Harmony, R. I.; Secretary—H. F. A. North, R. I. Agr. Exp. Station, Kingston, R. I.; Treasurer—Martin Greene, Wannamoisett Country Club, Rumford, R. I.

THE PRACTICAL APPLICATION OF TURF RESEARCH DEVELOPMENTS

Everett J. Pyle

(R. I. Field Day)

At no time in the history of greenkeeping has research work on turf problems been of more value to the greenkeeper. This work is so important that it cannot be discontinued without materially affecting the high standards of turf maintenance. The practical turf man is dependent upon the results of the experiments carried on by the Green Section of the U. S. G. A., the Department of Agriculture, the various experiment stations at our Agricultural Colleges, commercial seed houses and others, to guide him in his maintenance work on the golf course. Without the help from these organizations, he would soon find himself confronted by problems which he could not alone overcome. New insects and diseases are certain to appear to attack turf grasses. New varieties and strains of grasses

must be developed which will be resistant to these attacks, or which are demanded by the players or greenkeepers to improve conditions. The greenkeeper looks to the turf expert to experiment with these problems and to advise him.

Successful practical application of turf research developments depends largely upon the intelligent interpretation of these developments by the greenkeeper. It is up to him to decide if he can make use of the information revealed by experimental work and just how he is to proceed. Many of the suggestions made by turf research men often fail, not because they are wrong but because the greenkeeper doesn't know how to utilize them under his particular conditions.

The research men are doing unusually well in attempting to use the language of the greenkeeper in explaining their work, yet few of us realize how difficult this may be for them. Most of the research men are highly trained in scientific fields—they must be to approach our problems intelligently—and have at their command technical terms which they are good enough to discard so that the greenkeeper may more closely understand their explanations. It is a tribute to the turf research men that they speak our language.

Before the greenkeeper can make use of turf research developments, he must have some means of contact with the organizations which are able to give him this information. Probably the simplest way to gain this contact is through membership in some greenkeeper's club, for in such an organization he is not only in a position to get research bulletins, circulars, news letters, professional magazines, etc. but he is able to coordinate his ideas with those of his fellow greenkeepers and with those of the research men. The right contacts are just as valuable to the greenkeeper as to other professional men, and every opportunity to keep in touch with up-to-date turf research work should be utilized by him.

A greenkeeper should visit golf courses frequently where he may see how others are making practical use of research developments. Here again the best way to accomplish this is through membership in a greenkeeper's club.

The first step towards practical

utilization of research results has been taken when these contacts are made. The next step taken by the experienced greenkeeper is to try out new ideas from the research man, on his own course and on a small scale, before adopting them as part of his maintenance program. A turf nursery or a small section of a green, tee or fairway, is a good place to make these tests. Intelligent experimentation under one's own conditions is the simplest and safest way to proceed. The greenkeeper cannot successfully utilize new developments in turf research until he has familiarized himself with the details of the experiments responsible for these developments, and has tested the recommendations of the research man in his own way, on his own golf course.

So many of the developments in turf research are now in general practical use on most golf courses that we are likely to forget that these developments are the results of years of experimental work by turf experts. The research man demonstrated that commercial fertilizers could be used on turf more cheaply and more effectively than animal manures. Today most greenkeepers are using these highly concentrated commercial fertilizers with safety. The greenkeeper has learned the meaning and value of a complete fertilizer—that nitrogen is nitrogen, whether it comes from Sulphate of Ammonia or from Fish Scrap, and that the real value, so far as he is concerned, is based on units of plant food in the fertilizer and not on fancy trade names or secret formulas. This information has been given him by the research worker, and he has applied it in managing his golf course.

Among other research developments which have been put to use by greenkeepers is the practice of poisoning the soil with arsenate of lead to control such insects as grubs, earthworms, cutworms, webworms, etc. Those in charge of turf who use this method know just the amounts to apply and when to apply, because the research man has worked out the details in his experiments and has passed them on to the greenkeeper.

The research men found that copper sulphate, which was being used to some extent for the control of brown patch, was injurious to turf and, if used long enough, would finally kill the turf entirely. The greenkeepers applied this discovery by discontinuing the use of

this material, and used the mercury compounds instead for the control of brown patch and snow-mould. At first this treatment was very expensive but the research men went to work and proved that most of the mercury compounds would check these diseases if applied properly, and that the less expensive inorganic mercury salts were just as effective as the more expensive compounds. As a direct result of this work, greenkeepers found it possible to save money for their clubs by the practical application of this new development.

Experiment to show how various conditions in the soil affect the growth of turf, have done much for the greenkeeper. The early experiments indicated that soils should be acid for the best growth of bent grass. In practice, this acid soil movement was overdone. Many greenkeepers followed the erroneous theory that, if a little was good, a whole lot was better, and the soil on many greens was made too acid. This brought on new difficulties which were studied by the research workers. They found that many results attributed to acidity of the soil were due to other conditions. There naturally followed an investigation of these other soil chemical conditions which revealed deficiencies or excesses not before suspected. The records of these experiments have convinced most greenkeepers of the importance of testing the soil, especially for acidity. So many turf ills may be traced to this one soil condition that up-to-date turf men make periodic tests of their soil. Some greenkeepers are having their soil tested for nitrogen, available phosphoric acid and potassium although some of these tests cannot give him positive information of practical value. However, there is no doubt that one big factor in the practical application of this phase of turf research has been that of making the greenkeeper conscious of the importance of soil chemistry.

The research work being done to determine the effectiveness of various chemical weed killers is certain to be of great value to the greenkeeper. I think I am safe in saying, however, that experiments with these weed killers have not yet been complete enough to warrant any great degree of popularity for practical use. There is no doubt that several of these chemicals are being used by some greenkeepers to control weeds in turf, and it is certain

that this method will be used more each year, especially on the larger areas.

A new development in turf research, which will have a great deal of practical value to the greenkeeper, is the method of identifying turf grasses by the so-called "finger-print" method. This method is to be used in the laboratory only, and involves the study of grass sections under the microscope. The practical application by the greenkeeper of this development may seem vague. If he should be able to find out positively the strains of bent in his greens, of what use is this information to him? It is known that some strains of bent grass are more susceptible to disease attacks than others and that diseases may attack one grass while another grass would be immune. It is also known that it is the nature of some grasses to become practically dormant at a time when others do not show this tendency, and that some varieties are permanent while others are only temporary. Certainly it is as beneficial to the greenkeeper to know the various grasses on his course, as it is for the doctor to know his patients.

The experiments on putting qualities of various bent grasses and the development of strains more resistant to attacks of insects and diseases should be carefully studied by the greenkeeper. This information can be of practical use to him in his endeavor to improve the turf on his greens. He should learn from this research just what to work for, and from his experience, or his own personal experiments, just how to do this work effectively.

It is not the simplest problem to get greenkeepers to utilize research results. Many of them are naturally suspicious of new developments and are loath to give up the older ideas and methods with which they are familiar. No one can condemn them for not changing over immediately to these new ideas, but any greenkeeper who doesn't try them in an experimental way, on a small scale, is either unprogressive, prejudiced or lazy. The practical application of any of the turf research developments depends upon the willingness of the greenkeeper to investigate their merits.

The practical application of turf research developments has increased the demand for technically-trained men in the greenkeeping profession. This

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Concord, Mass.

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trend is evidenced by the large attendance at the greenkeeping courses established by several of our State and Agricultural Colleges; by the willingness of most greenkeepers to attend club meetings, conferences and such events as this; by the realization, on the part of greens-chairmen, of the necessity for the greenkeeper to attend these meetings as part of his work, and by the fact that men with scientific educations are taking up greenkeeping as a profession.

The practical application of turf research developments is up to the greenkeeper. He should keep in touch with all research work, intelligently interpret the results of this work, experiment with ideas which, to him, have promise of application on his course, and constantly check his present maintenance practices with research developments.

LAWN DAY PROGRAM

Mass. State College

(In Place of the Usual Formal Lectures)

The entire day will be devoted to a series of demonstrations and discussions concerning the important factors influencing the culture of fine turf grasses. The demonstrations will show the correlation of each factor one with another and will typify conditions found in private estates, home grounds, parks, golf courses and cemeteries.

After seeing and taking part in these demonstrations, visitors should be able to diagnose their own turf problems and determine the needed fundamental corrective treatment.

There will be opportunities for discussion and for the visitors to practice the theories brought out by the demonstrations.

PROGRAM

Tuesday—July 23

10.00 A. M.—Principal Topic—The Soil Influence

- (a) on variety selection
- (b) on disease susceptibility
- (c) on fertilizer assimilation
- (d) on many other factors

P. M.—Principal Topic—Cultural Treatment Influence

- (a) fertilizer assimilation
 - (b) the alteration of soil conditions
 - (c) susceptibility and control of disease
 - (d) Many other important factors
- Thursday—July 25

P. M.—Principal Topic—Cultural Treatment Influences

The above program as arranged is unique, somewhat spectacular, and should not be missed by anyone interested in turf management.

The program will be conducted by the following members of the department of agronomy:

Lawrence S. Dickinson

Elfriede Klaucke

Benjamin Isgur.

JUNE MEETING

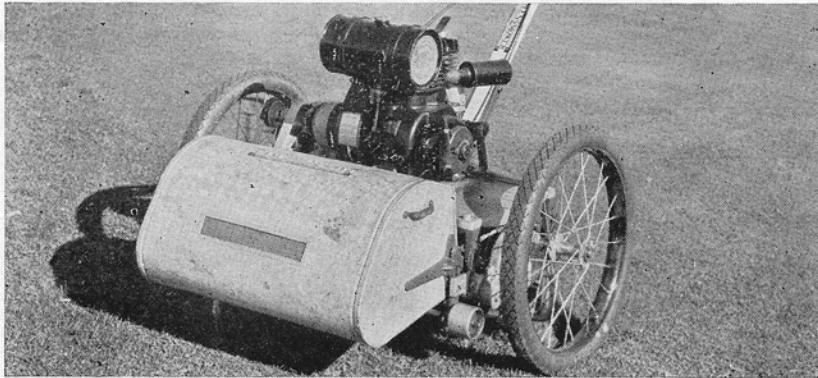
The annual Greenkeeper-Club Official meeting was held on June 3rd at the Wachusett Country Club, West Boylston, Mass. The home team of Braio and Allstrum won the first net prize with a reduced score of 68. Second prize was won by O'Grady and White-side of New Bedford after a toss up, as they were tied with West and Squire of Fall River with scores of 70.

Ed Phinney of Acoaxet got "very hot" a few days ago and broke the course record with a snappy 32, which might have been a little better if a few more putts had dropped!

Extension Leaflet No. 85, "Lawn Management" by Prof. Lawrence S. Dickinson of the Mass. State College has been recently revised, and carries a large amount of interest and helpful advice to any lawn owner or manager. Copies may be obtained by writing the Extension Service, Mass. State College, Amherst, Mass.



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THE CULTURAL TREATMENT OF BENT STOLONS

by W. F. Nye, Jr. and
C. W. Baker

The true value and strength of a creeping bent turf lies in the proper and distinctive cultural methods used by the professional greenskeeper in establishing and maintaining a closely clipped putting green or bowling area.

Bent stolons are not to be recommended for lawn purposes because the ordinary homeowner, who is usually an ardent admirer of the uniform carpets of green dotting his golf course, fails to realize that such uniformity of mat and virulence is due only to constant daily nursing by the greenskeeper.

Lawns, planted vegetatively to bent stolons and maintained at ordinary lawn height, appear to form a beautiful velvety greensward during the first two years of growth. Thereafter, perhaps due to the apparent tendency of the runners to lodge in early winter, it has been observed that the two-year old lawn weakens and becomes very susceptible to fungus diseases and scald. The result is that these owners, after a year or two of tolerance, throw up their hands in surrender; tear up the remaining sod, and seed the area.

I—Consider the vegetative planting and early culture of creeping bent stolons (*Agrostis stolonifera*).

A—For an ordinary putting green, averaging about 5000 sq. ft., an optimum cover may be produced from 500 sq. ft. of nursery sod or a bulk of about 50 bushels of healthy stolons. This rate has been used successfully on our own proving grounds as well as at the Middletown Country Club, Cromwell, Conn.

B—Stolons are succulent plant material requiring careful protection from the time of removal from the nursery until spread over the planting bed. Upon receipt of stolons plant them immediately. Serious damage to the material will result from bacterial action if it is allowed to stand bagged for any length of time. Fresh air, moisture and sunlight are necessary factors in keeping such material in a

healthy state. Therefore, if planting cannot be done immediately, remove the stolons from the bag and scatter them in a cool, shady place where they may be kept moist by sprinkling.

C—The planting bed should be carefully prepared with consideration for the foundation and subsoil; thoroughly pulverizing the surface to a depth of at least 4 inches and permitting it to settle naturally. Roll and smooth to the desired uniformity of surface; then rake lightly back and forth in one direction.

The stolons, having been prepared by chopping them into 2 or 3 inch lengths with a butcher knife, farm hay chopper, or other convenient means, should be spread uniformly over the area, and a top-dressing of about 2 cubic yards of good garden loam follow. It is not necessary to cover the stolons entirely. For their quick response, it is advisable to use only enough top-dressing to hold the stolons in place. Roll immediately with a light weight wooden roller or an empty water roller. This firms the soil about the nodes of the cuttings from which the new plants are produced.

D—Water is a most important factor toward insuring rapid growth in the newly planted area. Apply it by hand immediately after rolling, using a fine spray nozzle to prevent possible washing; and maintain this moist condition with sprinklers until the stolons appear well started. Judicious watering thereafter should not be neglected; and daily watering in the early morning is to be recommended during dry weather. Always water thoroughly, but do not permit a soggy turf condition to result.

E—The first mowing should come when the new growth is about 2 inches tall; and a well sharpened putting-green mower, set high, will help minimize mechanical injury to the grass blades. Permit the first cuttings to remain on the green, top-dressing them lightly with about a cubic yard of prepared compost or garden loam. Thereafter, the bed-knife of the mower should be lowered gradually to the putting length of $\frac{1}{4}$ inch. Daily mowing, except in extreme hot weather, is vital in order to limit the presence of coarse runners and an uneven playing surface.

The annual Greenkeeper-Pro Championship for the John Shanahan trophy will be held on July 22nd at Brae Burn. Be there with your pro.

The June meeting of the R. I. Greenkeepers' Club was held at the Wanumetonomy Golf Club, Middletown, R. I. on June 17th.

Due to the political situation in Rhode Island and Providence, Everett Pyle is no longer at the Providence Municipal Course. Some day ability and not politics will be the reason whereby greenkeepers and others on municipal courses hold their positions. Everett is now situated at Hartford, Conn. where he is building a new nine holes at Goodwin Park.

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F—Test the soil before fertilizing the new green. If its range lies between the pH of 6.0 and 8.0, indicating very slight acidity to a sweet soil condition, an acid reacting fertilizer like sulphate of ammonia may be applied with top-dressing. The recommended rate is **not** more than 5 pounds to 1000 sq. ft., applied in the early spring and fall. Half of this rate may be applied in the same manner on or about June 10th. Should the pH range lie between 4.5 and 6.0, and acid condition usually tolerable to most grasses, calcium nitrate should be substituted and the same rates stand. With proper care, a green planted in September should be playable about June of the following year.

II—Now to consider the maintenance and cultural treatment of a stolon area of established turf throughout its growing season.

A—Rolling is the first major operation. This should occur at a time when the roller fails to collect moisture on its surface from land still heavy with water. Its purpose is to press the grass crowns firmly into the soil from which they were removed by spring heaving.

—Mowing should be started as early as possible and become a daily routine. Prior to each operation a heavy mesh-metal door-mat should be dragged over the green to bring up new runners which are clipped off preventing an uneven coarse surface, rebelled at by the players. This matting also breaks up any worm casts and tends to destroy the early growth of two fungus diseases commonly known as Large Brown Patch and Dollar Spot.

All clippings should be caught and removed to the compost pile or field; and it is advisable for the greensman to choose a new mowing direction each day. Turning the mower off the green helps materially to control mechanical wear often noticeable near the border edges.

Stolon runners are prolific and may get the best of even the most careful superintendent. In such an event claw up the coarse runners with metal broom rakes; mow, and then repeat the process. Follow by top-dressing heavily with compost containing a light application of ammonium sulphate or calcium nitrate, and water in thoroughly.

C—A fertilizer program for the years to follow depends upon the soil reaction as it varies from year to year. It is advisable, however, to use a complete fertilizer in early spring and fall, having an analysis of about 10-6-4. The nitrogen percentage should be high in available organic material such as castor bean pomace, cotton seed meal, dried blood, tankage, and fish meal. Such a fertilizer may be applied safely at the rate of 10 pounds to 1000 sq. ft. just before a rainfall or watered in thoroughly by artificial means. Other nitrogen fertilizers used throughout the year as stimulents should be varied for best results in turf growth.

In addition to all advice and recommendations set forth herein we suggest also the value of establishing a stolon nursery; not alone as a source of supply for new areas but for patching material as well.

A—About 2 square feet of sod, loosened and freed of soil will spread out sufficiently to form a 100 foot nursery row.

B—Each row may be spaced about 5 feet apart and prepared by making the planting bed soft and friable. Establish a very shallow trench and lay out the material lengthwise without due tearing. Then cover it lightly; tamp with a hoe; and water thoroughly without soaking.

C—Water daily thereafter until the grass starts to grow well. It is important to keep the rows well cultivated and open, and the stolons weeded throughout the growing season for maximum reproduction.

Upon submitting this article, your attention is drawn to the truth of an old adage:

A stolon turf in reality is—
 4 times as costly as seeded turf.
 4 times as difficult to maintain properly.
 4 times quicker in maturity.

GOLF, according to Shakespeare

Cursed be the hand that made these fatal holes.

Richard III.

He knows the game. How true he keeps the wind.

Henry VI.

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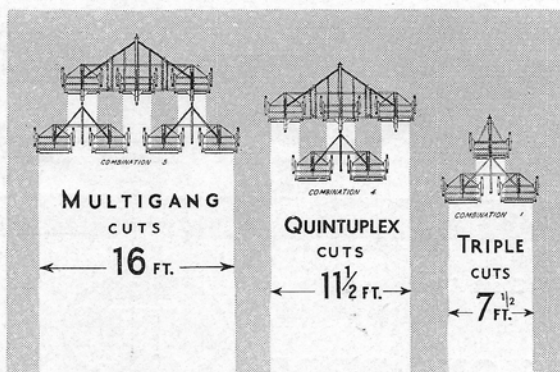
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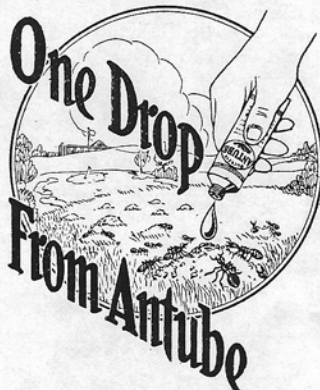
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