



NEWS LETTER

Doubt whom you will, but never yourself.

—BOVEE.

JULY

1935

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July, 1935

Vol. 7, No. 7

JULY MEETING

The July meeting was held at the Brae Burn Country Club on July 22nd, with the tournament being the annual Greenkeeper-Pro Best Ball Championship, this year the first in which play was for the John Shanahan Memorial Trophy. Winners of the trophy for the first time were Tom Mattus and Harry Nettleblatt of Pakachog Hill, Auburn with a score of 73-70.

Other scores follow:

Harry Nettleblatt and Tom Mattus, Pakachog Hill	73	70
Roland Hancock and Jim MacCormick, Unicorn	75	71
Les Cottrell and Ted Swanson, Bear Hill	76	71
Jerry Gianferante and Joe Johnston, Minute Man	77	72
Marty Higgins and Guy West, Fall River	81	72
Jimmy Dolan, Hillcrest, and Cliff Sowerby, Marlboro	75	73
Jack Harvey and Narry Sperandio, Marlboro	78	73
Joe Stein, Sandy Burr, and Bill McBride, Nashua	76	73
John Thoren, Woburn, and Ed Phinney, Acoaxet	75	74
Alex Briggs and Emil Mashie, Oak Hill	76	74
John Gilholm and Michael Grady, New Bedford	77	74

Ken Reid and H. C. Darling, Juniper Hill	78	74
Gene Mosher and Carl Treat, Toy- town	76	75
Tom and Walter Howe, Wellesley	76	75
Bill Cosgrove and Simeo Braio, Wachusett	76	75
Jack Curley and Harold Durkin, Waltham	78	75
Alex Bird and C. L. Hunt, Marsh- field	76	76
Jack Leany and John Fitzpatrick, Scituate	81	76
George Easton and C. Frost, War- wick	82	76
Bill Black and M. Braga, Bristol	79	77
Donald Vinton and F. Fiocchi, Plymouth	77	77
Abe Corveno and A. M. Barney, Wampanoag	80	77
Roland Wingate and H. Farrant, The Country Club	81	77
Frank Gilholm and Elmer Fuller, Highland	78	78
Bill Duffey and Jim Holden, Trapelo	87	78
Carl Nettleblatt and John Latvis, Tatnuck	81	78
George Ford and Bill Cassidy, Needham	82	78
Edmund Burke and R. W. Peck- ham, Wanumetonany	82	78
John Horgan and Ed Ohlson, Segre- gansett	83	78
George Apple and Lloyd Scott, Meadowbrook	84	79
George Flanagan and Nick Bruno, Arlmont	87	80
Walter Jones and J. B. Oldfield, Stoney Brae	86	81
Fred Low and Arthur Anderson, Brae Burn	85	86
John Homan and Harold Mosher, Riverside	88	84
Harold Cahoon and Ed Hansen, Concord	86	85
Charles Burgess and Bud Hayden, Woodland	91	85
Ed Lally and Gene Monroe, Fram- ingham	89	88

NOTICE OF TURF FIELD DAY**Monday, July 29, 3 to 6 P. M.**

N. J. Agr. Exp. Sta., New Brunswick,
New Jersey

The annual field day for public inspection and discussion of experiments with turf grasses, will be held on the experimental grass plots of the New Jersey Agricultural Experiment Station at New Brunswick, N. J., on **Monday, July 29**, beginning at 3 P. M., Daylight Time.

The experiments include 14 research projects, covering many phases of the problems involved in establishment and care of turf on lawns, parks, golf courses, and other grassed areas, totaling approximately 300 individual plots. Each of the various plots will be fully labeled. Printed reports of research, and recommendations on turf culture will be available for distribution.

All those interested in turf culture are cordially invited to attend. The field day is sponsored by the New Jersey Golf Association, and is conducted by staff members of the Agronomy Department, New Jersey Agricultural Experiment Station.

H. B. Sprague,
Agronomist in Charge.

MAINTENANCE OF COLLEGE**SPORTS FIELDS**

W. E. Perkins
(R. I. Field Day)

Only a few fundamental changes have taken place in the last forty years of turf culture. However, research and study of turf diseases, the effect of soil conditions, both chemical and physical, on grass growth, the relation of height of cut on turf growth, and the knowledge gained in controlling pests and weed growth have resulted in golf courses being maintained more efficiently.

The dissemination of this knowledge secured from recent scientific and technical research has greatly changed and improved the methods and reduced the cost of maintaining fine golf turf. Most

of this information has been made available to those interested in the maintenance of turf, by educational programs and courses, and through publications such as the United States Golf Association Bulletin, Golfdom, and the National Greenkeepers Magazine.

While all this knowledge is applicable to the maintenance of most turf there is still an unlimited chance for scientific work to be done on sports field turf. Very little investigation has been made on the relations of sports turf to the sports themselves. Certain grasses are as unsuitable for one type of sport as crab grass is for a putting green. The height of cut varies with the sport and seasons, and the question of sports field irrigation, drainage, and fertilization are quite different than that required for golf turf.

I firmly believe that scientific research and the practical application of any information gained, in regard to sports fields, will fill a much required need and aid those who are engaged in maintaining turf under the most exacting conditions.

There is a wide difference in the maintenance of turf for sport clubs, parks and municipalities, and that required for college sport teams. The latter are played by young, virile, well coached men and boys who are accustomed to having everything in excellent condition regardless of cost. They play for the pleasure and enjoyment to be gained, and also for the honor and privilege of representing their school or college. Competition for places on the teams is very keen and the rivalry often intense and as the selection of the representatives making up the team is based solely on merit, nothing is left undone to gain their objectives.

After graduation these men seldom continue in the sport that they excelled in during their college life; but if they should, the expense is always borne by themselves. The schedules are arranged to meet their desires, and only when the best playing conditions exist. These contests can be postponed, on very short notice if the weather is bad. Mandatory and compulsory rules can be formulated and laid down covering all conditions and of course are a great help to turf maintenance. The net result is that the turf conditions at private sport clubs are usually higher on the average than at our colleges where many sports are engaged in at once during very short seasons when the weather is not always the best.

However, turf maintenance on college sport fields is probably the most interesting and exacting of all the phases of turf culture. The problem revolves, of course, around the sport themselves, each class of similar sport requiring a different treatment and a seldom fully understood method of maintenance.

Sports can be classified as contact and non-contact. The contact sports are soccer, lacrosse, rugby and football; the non-contact — baseball, tennis, cricket, golf, track and field, and probably in a separate class entirely, horse polo. The turf requirements for the non-contact sports, as a class, are practically the same, and very much like golf course maintenance, but each of the contact sports because of their individuality necessitate special treatment.

There are about four important factors governing good turf development. These are (1) climate, (2) kind of grass desired, (3) soil condition, and (4) the time and rate of seeding or planting. Assuming that these factors have all been taken care of and that a good turf is assured, there are in addition to these, five other factors related to turf maintenance on sports fields; (1) mechanical factors, such as the length and type of shoe cleats, (2) season of the year that the sport is played, (3) the length of schedules, (4) the temperament of the athletic coaches, and (5) lastly the fact that the game must go on regardless of anything. This last factor is probably the most apt to cause the worst damage.

Modern sport has been improved by many new ingenious inventions and developments in equipment. The most outstanding change affecting turf, has been in the length and style of cleats for shoes. Football cleats for example, are of variable length and shape; the most common type being about $\frac{3}{4}$ " in length, that can be replaced quickly by a longer cleat for wet weather. Scuffing, sliding, digging in and starting with these cleats tear or wear out turf in a very short time.

Another mechanical factor affecting turf is the automobile. Parking space usually is provided on nearby fields that are idle, and the entrance and exit of several hundred cars severely damages turf.

Canvas covers used in many places to keep the turf in good shape for important football games, can seriously affect turf. Grass is often smothered,

when an extended wet period occurs while these covers are on and cannot be removed until the day of the game. The weight of such covers alone, when wet or covered with snow and ice, is too much for turf and serves to compact the soil more so even than rolling.

Sport seasons greatly affect the maintenance of turf. It is a rare thing to find any college so largely endowed with land that it can rotate its fields for sports in spring and fall. Naturally a field that is used for heavy spring traffic, lacrosse or rugby should not be used in the fall for soccer or football if you wish to keep the turf. There are only two growing seasons for grass, the spring and fall and regardless of the sport, turf used in one season should be allowed to recuperate in the next. Of course, this recuperation can be aided by watering, fertilization and sodding. Seeding, however can only be regarded as helpful after the fall season and then should be allowed to grow through the next without being used. It is however, a wise practice to reseed small areas, as late as December 20th, as this seed will have many weeks start over anything that can be accomplished in the spring in this climate.

Almost all college sport schedules are arranged so as to get in the maximum amount of competition in a short period. This usually means that spring schedules are apt to be too early and fall schedules too late. Turf is never ready for any kind of traffic until the frost and moisture is out of the soil and the grass rolled, yet schedules are prepared the year before, with no consideration given to weather conditions. A fine spring day, or the appearance of the first robin means that the fields are wanted, no matter whether there may still be heavy frosts to contend with or not. Naturally turf subjected to such unwise practice is severely damaged. Likewise, sport seasons extending into late fall cause a similar damage that can not be repaired in time for spring use.

Maintenance is often unjustly charged with game losses, if the turf is not good, or the grass too long or thin. Long grass taxes the strength and endurance of a runner, and soft turf causes slipping. Yet too short a cut may impair the ideal ratio between top growth and root growth, and with top growth increasing, produce a soft succulent easily damaged turf. These facts are not understood by the athlete who talks only in terms of points and who is apt to want on the east coast, in an

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off season, what he has seen in California during an ideal season for turf growth there.

It usually is impossible to postpone college sport contests if there is the remotest possibility of playing the game. This is due to the fact that should the game not be played on the date scheduled, there are no open dates available later, and results in the loss of college rivalry and disappointment to the teams. Therefore, regardless of the weather the game is usually played. One can easily picture the untold damage resulting from a football game held after and during a heavy rain storm, or after a heavy frost in late fall as the ground thaws in the mid-afternoon sun. Fields subjected to treatment of this type cannot be kept in good turf over a period of years, and must be rebuilt sooner or later.

I have given this resume up to this point to acquaint you with athletic field use and to show some of the difficulties involved before describing the maintenance.

Spectators and players are seldom familiar with approved turf maintenance of sport fields; or the large amount of time and energy involved. In order to bring some of the more important details to your attention, I believe that it can best be accomplished by considering the various sport fields individually.

The maintenance of turf on lacrosse, and soccer fields is very similar. The size of the fields are quite comparable, and the games result generally in about the same damage to turf. There are two places where these fields suffer most and require special attention. These spots are at the two goals and the center where the play is concentrated and bare spots develop. Reseeding in the late fall will assure early germination and prevent weed growth, but the field should not be used again for one year to justify the expense of reseeding. Turfing at the end of the seasons is usually very successful if water is available, but spring seeding is an unwise procedure. The best type of grass to use is a mixture containing Chewings Fescue, Kentucky Blue grass and Bent, probably favoring the Blue grass, if the soil conditions are right, because of its toughness, and ability to stand abuse and its aggressiveness although it takes two years to produce good plants. The height of cut usually desired is about $1\frac{1}{4}$ ".

A baseball field should be oriented so as to face the south to be ideal. Any grass indigenous to the region and climate will suffice. A mixture containing a high percentage of bent is preferable, but fescue-blue grass mixtures are very serviceable. The proportions in such a mixture depends on the soil, drainage and irrigation system at hand. A baseball field turf should not be cut over 1" on the outfield, while an even shorter length is desirable on the infield.

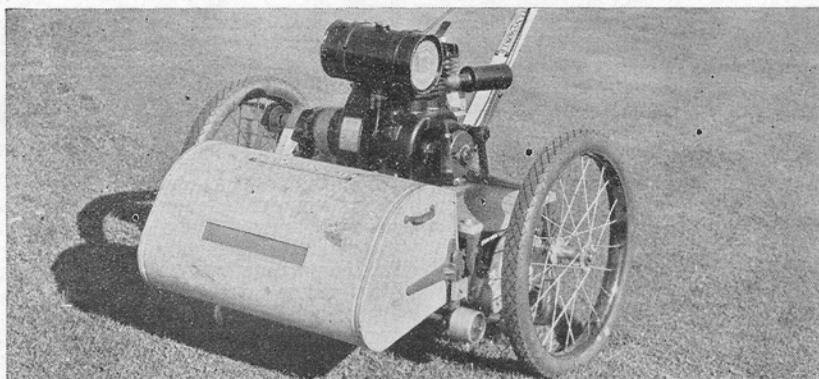
An ideal grass for turf tennis courts in this climate seems to be Colonial or Rhode Island Bent. It is aggressive and a quick turf producer, not very susceptible to disease and will stand close cutting. A grass court should be top dressed and fed regularly in much the same manner as a green with a balanced fertilizer that will not force the growth. The height of cut seems to run generally around $\frac{3}{4}$ ".

Football holds the sports spotlight today and therefore football turf is undoubtedly subject to more discussion and interest than any other sports turf with the possible exception of golf course turf. The game in many places is played in concrete stadia holding from 50 to 100 thousand people. One might be led to believe that this fact would have no effect on turf maintenance, but it is easy to show the relationship.

Turf to be healthy must have air and water in proper amounts at all times. All football fields located in concrete sports stadia of necessity require sub-drainage and very adequate surface drainage of the large watershed. It often happens that this drainage system will take the water too fast, or on the other hand be inadequate, resulting in waterlogged conditions. Should the leaching of water be too fast, or an exceptional dry period occur, irrigation can be overdone, resulting in a tender soft turf. Often the over abundance of moisture and the lack of ventilation due to the physical nature of stadia will encourage disease making another problem to contend with. Concrete stadia, exposed as they are absorb the heat rays of the sun, radiating it at all times, making the temperature conditions over the turf most unsuitable for grass development and maintenance with no way to correct it. Gridirons are usually graded in a parabolic curve with grades approximating one inch in ten feet, which insures very ample surface drainage; but this grade must be watched, as play will



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cause pockets that will hold water with resultant injury. The best football turf in this climate has been developed from mixtures of Chewings Red Fescue, Kentucky Bluegrass and Bent. Excellent results, however, have been obtained in some Central States from Bluegrass alone, and in California where bent is used almost entirely. A pure Bluegrass turf can be secured here, but as it is not too aggressive and will require at least two years to develop, I do not recommend it. Neither do I believe a stolon turf, with runners above ground, is desirable, as the damages done during a game can be most severe. I understand that a strain of Bent, known as the Bermuda grass of the north, with underground stolons has great possibilities for these exacting uses. Right now I favor the mixed seeded turf in which the Fescue Bluegrass predominates; because of its ability to withstand drought and damage, and because it apparently has no soil preference, although it seems to be more satisfied on slightly acid soils.

During the summer months football turf should never be cut less than 1½-2" height, being gradually cut lower to 1¼" for use. Divots and torn spots should be replaced after each game, with a little soil and seed added. A fertilization program should be followed each year, the analysis of the fertilizer being dependent on soil conditions, the kind of grass, etc. An application of superphosphate annually will aid root development and growth. Rolling should be done only once in the spring after all frost has left the ground, as the continued tramping of 22 pair of feet with cleats packs the ground much more than is desirable. Fine results may be obtained where there is too much compaction, by spiking the turf and applying domestic pulverized peat moss or charcoal, or a similar product that will get down into the soil and alter its physical structure.

The maintenance of polo field turf can be boiled down to fertilizing, mowing and watering. All are very essential, but irrigation is perhaps the most important. It is almost a physical impossibility to keep a 900' x 400' field in good turf unless the irrigation system is perfect. The automatic underground systems such as the Buckner will reduce the cost of watering almost 50% and the improvement of the turf very marked over any hose system that can

be installed. Polo turf should be made up of a mixture of fescue and Bluegrass, with some yarrow to help, where irrigation is not the best. The ideal height of cut is about 1" for games and practice—but during the off seasons should be allowed to grow to a longer length. Care must be taken to replace all divots between periods and after all games, and to keep the turf soft enough so as not to injure the ponies legs, and kept hard enough to prevent slipping and excess damage from their hoofs.

In summarizing I believe that turf maintenance on sports fields requires methods totally different than those used on golf courses. In general, the fertilization is quite similar but the height of cut, irrigation and kind of grass best suited for the individual purpose is most variable. As on golf courses clover is not desirable in sports turf, as weedy turf soon causes trouble. No definite routine in maintenance can be followed for any length of time, the turf usually does not stand the localized damage and must be reconditioned by resting. A field seeded one year should never be expected to stand the abuse of athletic contests for two years at least if good turf conditions are desired. The most practical and definite recommendation that I can make, that will assure good turf continually, is the rotation of fields, and the sodding of fields badly worn out, that must be used each year

A recent letter from Prof. H. F. A. North of the Rhode Island Experiment Station is of interest:

Mr. R. F. Robinson has recently reported to me that 3000 square feet of pure 14,276 velvet bent lawn sod has been purchased from him by the Park Commission of Hartford, Connecticut. This sod will be increased by planting small squares at intervals of 6 to 12 inches in nursery rows. It is planned that the increase will furnish vegetative material enough by September 15th to plant the 70,000 square feet of green area that the new municipal nine in Hartford will require.

This has proven entirely practical under conditions at Kingston where vegetatively planted 14,276 velvet bent has been less than one month slower in forming a putting surface than Washington creeping bent stolons planted at the same time the previous autumn.

The credit for this venture must be given to Mr. Everett J. Pyle, former Greenkeeper in charge of the Providence Municipal Links, in charge of the construction of the nine new holes and the revision of another nine for the municipal use of Hartford. Mr. Pyle should obtain remarkably beautiful greens from this planting and it is probable that this marks a new era in putting green turf growing in New England. Aside from the Kernwood Country Club under Mr. Mitchell's management at Salem, I have not heard of another set of pure velvet bent greens. I believe Mr. Pyle will note a distinct saving in fertilizing, composting, and treatments for brownpatch control with this superior grass, probably sufficient to pay the slightly higher cost of planting that it entails.

Mr. Robinson also mentioned that he has saved 100 square feet with which to propagate more turf of the same quality and that he has purchased a half ton of fertilizer to keep it growing. I understand that R. F. Robinson, Jr. will be the greenkeeper in charge of this project from now on.

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PUTTING GREENS MUST BE GOOD

By W. W. Stewart

(Reprinted from The Pacific
Greenkeeper)

Many a flaw may exist throughout the playing area of a fairway and unless the whole area is poor only a few players over a long period of time may suffer a poor lie. But when they reach the putting green, as eventually most of them do, that is another matter. On the greens the players may have to putt from any angle or section which makes it essential that all of it be in good playing condition. This all greenkeepers realize, but how to attain and hold this condition is the greatest of all their problems and one which gets more difficult every year.

The high standard of quality in putting surfaces as demanded by the present day club member is a delicate and expensive piece of turf to maintain. The demand for this type of green has arisen from the introduction of the fine bent grasses on many golf courses. Visitors from bentless courses visiting and playing upon these beautiful greens of the more recent type returns to his own bentless club a confirmed agitator for a change there. It is easy for him to obtain a following for every club member takes keen delight in having the best on his own course, and thus they are well on their way towards renewing and re-seeding greens that heretofore have proved satisfactory.

This process has been the cause of many clubs, which could not afford the expense, remodeling and reseeded only to find after a time that the perfection they sought had not been obtained. Very often more money is spent in bringing greens to playing conditions than was estimated, and yet very seldom is there enough spent to establish conditions to make a putting green upon which it is fit to grow finer grasses than had been grown before. Everything is rushed for quick results without any consideration for the future years of maintenance, and as quickly as possible upkeep expenses are cut to the bone. From this point on the harm has been done and what has been considered an economical path is in reality the sure road to destruction. Many disappointments have been encountered on account

of false economy which has slowly but surely led to the complete degeneration of a fine putting surface.

A putting green is a delicate piece of fabric intended for delicate and accurate play. This even the most poorly prepared greens may be for a short time. But frequently during this period the club has been unable to supply them with the necessary care. The grass has thinned and the weeds have thickened. The golf course crew is too few in number to do any but that work necessary to satisfy the needs of the moment. The weeds, poa, chickweed, crab grass, and all the rest take a firm hold and in five years we have none of the original seeding, none of the fine green once contemplated. Instead there remains a weed patch containing everything up to and including the kitchen stove. The matter of keeping a green free of weeds is the most important thing in extending the life of a good putting surface, a surface that will be a joy to all who play upon it. To achieve such a green is a problem, but with exercise of constant vigilance in order to keep ahead of the weeds the task is simplified immensely. Greens have other things the matter with them, of course, but it has been my observation that neglect of weeds has been the real ruin of most greens and the cause of clubs spending thousands of dollars in reconstruction and reseeded work. When weeds once have taken possession it is necessary that they be removed before the original good putting surface can be restored, and frequently this means that entire new green must be constructed.

Of course the casualties of the past season prove that things other than those over which a greenkeeper has control can wreck all his best efforts, but constant vigilance and effort will go a long way towards doing away with many of the conditions which might easily be termed unavoidable.

Grubs, worms, and all the rest of the insect pests can do a lot of damage unless checked at the very start. It is the duty of every greenkeeper to anticipate the invasion by such enemies, and to know how to check it. If anything which looks like trouble appears in a green it is foolish to hope that nothing will come of it. Drop everything else planned for that day and rush to the rescue of the all-important putting green.

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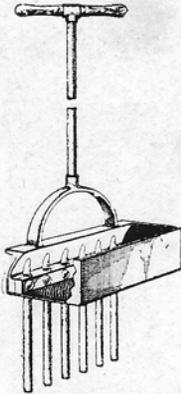
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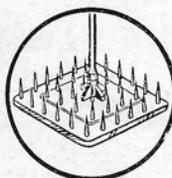
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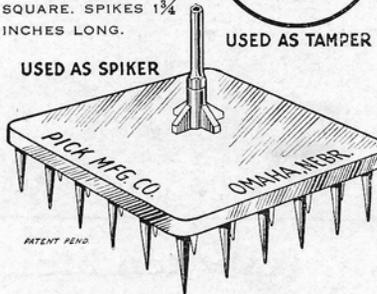


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