No. 1206 One of the smartest toppers under the sun. A new snap-down cap in choice of two gay woven plaids ... tropical weight, extra full crown, rayon satin lining and breezeway front of white net material. Made with water repellent Texon visor.

No. 1205 Same style in white Twill, tropical weight.

No. 440 Made in white, tan, red, green, and navy twill with airflow sides of white mesh. Texon visor with green underbrim in white cap, self underbrim in others. Suitable for all ages.

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THE BREARLEY CO., ROCKFORD, ILL.
"Why Under The Sun Don't You Wear One?"
Turf Roundup of 1952

By FRED V. GRAU
Director, USGA Green Section

(Closing Installment)

Clover Control

From our standpoint, observing results in the field, the best clover control in fairways and lawns has been accomplished by the use of 2,4-D and 2,4,5-T combined. We saw a great deal of this work in the Midwest, where it was successful with practically no damage to the existing turf grasses, such as they were. Apparently this combined treatment of 2,4-D and 2,4,5-T appears to satisfy the requirements of clover control on large areas in the Midwest. In the Northeast considerable attention has been given to the use of Endothal. A special memorandum was developed to warn users against the mixture of Endothal. Apparently the range of tolerance is rather narrow and an overdose may cause severe damage to the turf grasses.

People

We shall not be able to record in their entirety the changes in personnel in Turf Management in various parts of the United States. We will mention some of those changes that have been made known to us and that appear to have a significant effect upon the development of the National Coordinated Turf Program.

Col. R. H. Morrish, U. S. Air Force, will leave the Air Force as of November 1, 1952, to operate the business of the Noble Brothers Feed and Seed Company at Flushing, Michigan. He purchased this business and intends to devote his entire time to its prosecution. Col. Morrish long has been active in developing interest in Turf Management among the Armed Services. He has been more successful than most who have tried.

Dr. John C. Harper III is affiliating with the Division of Forage Crops and Diseases at Beltsville, Md., in late October. The USGA Green Section will have the opportunity to work closely with Dr. Harper. This is particularly pleasing because Dr. Harper received his degree under Professor Musser, working on the turf research fellowship established by the USGA Green Section.

Dr. James R. Watson, Jr., who was the first doctorate under the Green Section fellowship at Penn State, has left Texas A. & M. and is now employed by the Toro Manufacturing Company, at Minneapolis.

Marvin H. Ferguson, who left the Green Section on a leave of absence to go with the Military Air Transport Service, has could be renewed with very little trouble, left the MATS and is occupying the spot left by Dr. Watson.

Dr. Will Myers, formerly Head of the Division of Forage Crops and Diseases at Beltsville, has gone to Minnesota as Head of the Plant Breeding Department.

Dr. Kenyon T. Payne, well known in the Midwest as an officer in the Midwest Regional Turf Foundation at Purdue, has left there and is heading the Crops and Soils Department at Michigan State College, East Lansing, Michigan.

Ed. Merkle, who got his Master's Degree under Professor Musser through the West Point Products Corporation fellowship, is now at Scott Field, in East St. Louis, Illinois.

John Gallagher is busy working at his doctorate problem at Penn State and is giving Burt Musser a real lift. John is looking forward to the time when he will have his degree and can go back to California to help develop the turf program.

Fellowship at Penn State

Mr. Miles F. Nelson recently has been appointed to accept the Third Green Section Research Fellowship at Penn State, as announced by Dr. H. R. Albrecht and Prof. H. B. Musser. Mr. Nelson is a graduate of Wheaton College in Illinois and had been working for Prof. Musser during the summer. His interest in turf developed to the point where he wanted to work on the problem and Prof. Musser found that he had the necessary training and background to do so. His problem is to study the comparative effect of various soil aeration implements that relate to soil aeration, water penetration, root growth and other factors. The Green Section is supported in this fellowship by the Golf Association of Philadelphia, the Western Pennsylvania Golf Association, and Central Counties PGA.

Sodding

Sodding of turf areas has assumed a new and enlarged position of importance in the turf field. Part of this is due to the fact that there is a good power sod cutter which not only can cut large areas of sod, but which also eliminated the necessity for trimming the sod block by block, as it used to be done. Each strip of sod is already trimmed, ready to lay. A great many superintendents are hailing this as a big advance in their business. For instance, if an adequate sod nursery is provided, the entire surfaces of the tees...
using a power sod cutter and employing conventional methods of rolling and laying. Many athletic fields will get a new face-lifting by virtue of the fact that the management of some athletic fields are recognizing the fact that they must develop a sod nursery to replace the center portion of the field when it becomes worn.

The method of cutting sod is receiving new attention. The new improved turf grasses knit together so tightly that it is not necessary to cut a thick sod. Sod that is cut very thin not only knits quicker after it has been laid but the area from which it was removed renews its growth and provides a usable sod again in the shortest space of time. In addition, a roll of sod cut thin is much easier to handle. In stripping combination zoysia-Merion bluegrass turf at Beltsville a ten-foot roll of sod cut with the Ryan power sod cutter as thin as it could be set could be handled easily by one man. There are not much data upon which to base recommendations for using sod but when the better turf grasses are used to grow the sod and the sod is cut with a power sod cutter, the moving and laying of sod becomes a relatively simple process.

The introduction into home lawns of sod of the superior turf grasses is a distinct possibility and will be expanded in the very near future. The plan to furnish to the home gardeners sods of the superior turf grasses is a distinct possibility and will be expanded in the very near future. The plan is to furnish to the home gardeners sods of the superior grasses; for instance, the combination of zoysia and Merion bluegrass for those who want it. Such sods would be laid on a prepared seedbed, planted in firmly until they knit, and kept mowed closely. Fertilizer of course would be used as required, also water would be used when needed to keep the grass alive and to keep it from burning up during a long period of drought. After the sod has knit, small pluggers would be utilized to move plugs to other places in the lawn. In effect the home gardener would purchase a ready-made sod nursery which would be his last expense except for his own labor in moving plugs of sod to other portions of the lawn and in refilling the holes.

Better Tees

Better tees are being provided for the golfers in a wide area from Philadelphia, Baltimore, Washington, to Louisville, St. Louis and Kansas City, through the use of adapted warm-season grasses. Two of the favorites are zoysia and U-3 bermuda. There have been some failures with these warm-season grasses but by and large the reason for the failures has been determined and they are not likely to occur again. One of the reasons was excessive winter play during the dormant period of these grasses. Apparently this cannot be tolerated beyond a certain degree, which of course must be determined more accurately through research. One of the plans which seems to be workable is to provide either two tees or a split tee whereby half of the tee is used during the winter with a heavy overseeding of a cool-season grass, or a tee composed entirely of cool-season grasses; the other tee or the other half of the tee would be the warm-weather tee composed of the warm-season grasses. We find that this practice is spreading and it seems to be entirely

--- Grau photo

Top row — common Kentucky bluegrass. Bottom row — Merion bluegrass. April, 1952, Beltsville Turf Gardens, during an extremely heavy attack of Helminthosporium leafspot. This is combination zoysia-bluegrass turf. The common bluegrass was nearly destroyed.

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practicable and workable.

The Green Section has mimeographed copies of the nation-wide Merion bluegrass survey conducted in 1952. The answers from the leading research people over the country are quite revealing. Copies of this survey are available from the Green Section office upon request, accompanied by a self-addressed, stamped envelope. The survey particularly has been useful to dealers to help answer many of the questions of their customers. It is planned to conduct similar national surveys with all improved turf grasses.

Golfdom carried an item on Delta bluegrass in the September issue. This item fairly well states the position of the research men across the country. For the benefit of readers of this Round-up we repeat that in most sections of the country data and observations indicate that Delta bluegrass seed will give approximately the same performance as will common bluegrass seed.

In the St. Louis area there is some interest in Arboretum bluegrass—a type that was developed by the St. Louis Botanical Gardens. A small amount of seed is in existence but as yet Arboretum bluegrass has not been evaluated adequately. Based on our observations and tests we must say, until we know more about it, that Arboretum, too, will give approximately common bluegrass performance, particularly under the lower heights of cut which are tolerated by Merion bluegrass.

Wild White Clover

Sweeping claims are being made for an imported wild white clover in controlling crabgrass on lawns. Periodically the subject of wild white clover has been exploited but to date there is little evidence to support the claims that the sowing of imported wild white clover is the answer to crabgrass problems on lawns. A great many people will be disappointed. To our knowledge there is no research and there are no data to support the claims on this subject.

Soil Conditioners

The situation regarding the soil conditioners is most unfortunate. A great many people are buying various materials with little or no knowledge of what to do with them and how best to use them. As yet data have not been developed to enable people in research and extension to tell golf courses how to use soil conditioners most effectively. We feel that it will be two to four years more before we have many of the answers that we need to make sound recommendations. The picture is further confused by the development of many trade names and various percentages of soil conditioners, some are dry, some are wettable powders, and some are liquids. How the home gardener or the superintendent is to sift the skimpy information and learn how to use these materials most effectively is beyond us. We do not doubt but that soil conditioners will have a place but the advertisements and the claims appear to be running far ahead of data and sound recommendations.

Extension Service Lacking

The greatest need in the immediate future is to maintain sound research programs and to amplify the Extension Service programs. Practical men in turf management need, above everything else, a source of information that is unbiased and quickly and easily available. In only one state do the turf interests have available to them Extension Service which is tax supported. In many cases Extension Service is not being used. In many cases Extension Service is not serving Turf Management in a practical turf superintendent. Extension Service was developed to serve the taxpayers because it is a tax-supported institution. The fact that Extension Service is not serving Turf Management in a great many cases is because the people in Turf Management have not made a unified request for the service from their colleges.

The void in Extension Service in turf is being met partially by industry. Industry is seeing the picture and is employing men who are trained in Turf Management. These men do not carry an order book but travel and visit in the interest of Service. They sell the name of their company and, through that, the products made by the company. It seems to be the trend (and we can look forward to more of this type of thing) if the Extension Service fails to recognize its duty and responsibility.

Poa Annua

It was rather dramatic that the main topic of conversation at the GCSA Conference in Columbus in February should be followed by such a wholesale disappearance of Poa annua over such a large portion of the United States. It seemed almost providential. On many courses where Poa annua normally would last through the summer, this year it failed completely. It has awakened everyone to the fact that this is one of the most unreliable of turf grasses. Where we attempt to use Poa annua as a cool-season companion to a desirable warm-season grass we find that even then it is undependable because it may come back in the fall if moisture is adequate or it may refuse to come back until the following spring when moisture becomes adequate. There are so many unknowns about Poa annua that there are many years of research ahead of us before we can either learn to destroy it or to use it successfully.

For the first time in several years be-
June 5, 1952

George S. May Company
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Gentlemen:

Three years ago, we installed a Profit and Expense Control as recommended by George S. May Company engineers.

Since that time, our operating profit has been slightly more than twice the margin we had thought possible in our industry.

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cause of lack of personnel the Green Section had to abandon its annual National Turf Field Day. This came at a particularly strategic time because so many USGA member clubs were in trouble. However, the attendance at field days in other parts of the country appears to be at an all-time high by virtue of the troubles involved and the new interests in new developments. The development of the National Coordinated Turf Program on a decentralized basis as developed by the Green Section starting in 1945 has, in a measure, made it unnecessary for the Green Section to maintain and develop National Turf Field Days.

A reasonable substitute was accomplished in 1952 when the turf research people from a wide area were invited to come to Beltsville to spend a day discussing research teaching and extension in turf as a guide for everyone involved. It was quite successful and more of this type of thing is planned.

Turf Cultivation

Superintendents everywhere are enthusiastic about the results of their aerifying programs. Many of them credit their aerifying procedures with their ability to hold turf through the severe periods of 1952. In some cases aerifying equipment has not entirely been successful, perhaps from the misunderstanding of the capabilities of the machinery and from an unwillingness to learn how to use the machines most effectively at the proper time and under the proper conditions. There is no doubt that we can point to the development of soil cultivation as one of the most significant events in the history of Turf Management. It rates on a par with the discovery of nothing else that we know of because soil cultivation and soil aeration had never been accomplished before the way it is being done today on thousands and thousands of acres of highly specialized turf.

Honorable Mention

This leads us then to the naming of the subject for special attention in 1952. We nominate for top honors the manufacturers and the users of soil cultivating and aerating equipment who have made such a significant contribution to America's turf in preventing runoff, in affecting more efficient fertilizer usage, in developing deeper and more extensive root systems, and in providing the users of the turf a more satisfactory playing surface. We learn from research conducted at Penn State under the West Point Products Corporation fellowship that soil cultivation under turf results in greatly increased water penetration and much deeper penetration of lime and phosphorous, which heretofore stayed in the surface for many years before it slowly worked its way downward. I can think of no other subject that is more worthy of being singled out for attention and special mention than this one. Congratulations to manufacturers and users!

Green Committee Chairmen

The problem of shifting (not shifty) green committee chairmen every year is still with us. It is one of the principal problems of the golf course superintendent and one which keeps his position in constant doubt. It is a real pleasure to visit a course where there is a chairman-superintendent team of long standing. We have

(Continued on page 72)

Championship putting green turf. This is the combination of Arlington and Congressional at Wichita Country Club, Wichita, Kansas.
MEMBERS WANT
FULLY SATISFYING SHOWER BATHING

This all clubmen know: that fatigue from work or play can be washed away and the feeling of fitness restored if the shower is completely satisfying. To measure up to their wants the SHOWER HEAD must deliver a full spray, evenly distributed in an undistorted pattern, and directed as desired.

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In this revolutionary new shower head you get the Desired Dozen Features:
1. Self-cleaning. Patented automatic action thoroughly flushes the interior of shower head with each use.
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10. Maintenance eliminated. Since this shower head is always free from clogging and other faults it requires no servicing.
11. Easily, quickly installed. Equipped with connector that fits all standard shower arms on old or new installations.
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Please send me illustrated folder containing full information on the unique New SLOAN Act-O-Matic SHOWER HEAD.
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This Shower Head is AUTOMATICALLY SELF-CLEANING Each Time it’s Used.
The pool at Rolling Rock Club, Ligonier, Pa., is a charming exhibit of the smaller pool installations at country clubs, and another illustration of wise painting practice.

Find The Answer To Pool Painting Problem

By J. A. CONDON

Special enamels for swimming pools have greatly diminished the problem of swimming pool maintenance at golf clubs. The problem is an important one as the pool either has to be attractive in appearance and operated with moderate cost and highest health standards or it has no place in the clubs' plans.

The pool painting job up to a few years ago was one that caused considerable discussion among club superintendents and managers as a pool must be kept perfectly painted and the expense of painting each season was getting to be a substantial item in maintenance costs. But the experience of country clubs during the past several years plainly indicates that the answer has been found. Paints of the water-mixed cement type or the rubber base variety are available. Both types may be used with varying satisfaction. The water-mixed cement paints are O. K. when limited serviceability is required but the user must be reconciled to frequent painting as the color generally fades rapidly and the coating sometimes congeats the filters and makes the water cloudy.

There also is the disadvantage of water-mixed cement paint encouraging the growth of algae in the alkaline surface of this paint. When the pool is out of use the rain and snow tends to leach the lime out of the paint surface. Carbon dioxide in water may crumble the concrete and chemicals used in pool water treatment also have the effect of deteriorating concrete and promoting the development of cracks.

The chlorinated rubber-base paint, Ramuc, seals itself into the concrete pores and doesn't powder, flake off or blister. Its satiny finish makes pool cleaning an easy, thorough job. The Ramuc surface is more comfortable to bathers' feet. Color is preserved for several seasons and wear is even.

The Ramuc enamel may be applied over water-mixed cement paint but it is better for long-term economy to completely remove the cement paint before applying the durable rubber-base enamel.

The results of the Ramuc painting of pools at Tam O'Shanter and Knollwood in the Chicago district, Bonnie Briar and Canoebrook in the New York Metropolitan district, Pittsburgh Field Club and Rolling Rock in the Pittsburgh district, Kenwood in Cincinnati and numerous other country clubs known for excellent operating practices have made the material pretty much standard in country club pool maintenance.

A new Swimming Pool Handbook cov-
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Please ship Kolapsi Karts, Type: __________________________

Please send complete information about the Automatic Kolapsi Kart for (resale) (my private use).

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Club: ____________________________ Position: __________________________

February, 1953
Canoebrook CC, Summit, N. J., maintains its pool in immaculate and beautiful condition at moderate expense, with paint being a primary factor in the maintenance program.

erating painting and other essentials in pool maintenance is available for the handling cost of 10 cents from Inertol Co., Inc., 480 Frelinghuysen ave., Newark, N. J.

**Hopkins Cup Matches Set for Montreal, June 5-7**

Montreal again will be scene of the International PGA Team Matches between the U. S. and Canada and as an added feature a series of international invitation team matches will be held. John Jay Hopkins, international industrialist, is donor of the international trophy and sponsor of the event.

Dates assigned for the match by the PGA (June 5-7) coincide with coronation week, an event of paramount importance in the British Dominion.

The Hopkins Cup Matches, scheduled between the Western Open in St. Louis (May 28-31) and the U. S. G. A. Open in Pittsburgh (June 9-13), will be played by six-man teams from each country. Play will consist of three 36-hole four-ball matches the first day, followed by six 18-hole individual games each of the following two days.

The added event, scheduled for June 2-4, immediately preceding the Hopkins Cup match, will be played by two-man teams of top pros from half a dozen countries who have been invited to participate. Bobby Locke, also participating in the main event, has already accepted. Other acceptances are expected shortly from Peter Thomson and Norman von Nida of Australia, Julius Boros and Jack Burke, Jr., of the United States, Max Faulkner and Harry Weetman of Great Britain, Stan Leonard of Canada and two leading money-players from Mexico. Invitation matches will consist of three days of match play.

**"CADDY TIPS" IS NEW TRAINING BOOKLET**

A pocket size, 16-page, two-color booklet — "Caddy Tips" has been published for use by caddy committees and other golf club officials. Twenty-six cartoon illustrations are in the attractive yellow and green booklet. It is written in an easy-to-understand style and covers all phases of a caddy's duties. Special sections deal with caddy chores on the tee, fairways, in roughs, sand traps, water hazards, on greens, around the locker room and clubhouse, and "in general."

Nicholas Popa, a former caddy and now Public Relations Director for the Byer & Bowman Advertising Agency, Columbus, Ohio, is author and publisher of the copyrighted publication. He is a member of the Brookside G&CC near Columbus.

Golf club officials may obtain a sample copy free upon request. "The nominal 25-cents per booklet charge is far less than it costs any club to train a caddy if done haphazardly with mimeographed instruction sheets," Popa remarks.