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Chicago Tribune



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TOURNAMENT

Jack Fleck, 1955 U. S. Open Golf Champion, shot a hole-in-one last month, determining the Nadco Hole-In-One Tournament. A fabulous climax to the unique Nadco Contest, it was the third ace in the lean champion's golfing career. Winner of the grand prize award, a new Cadillac, was Mike Douglas, River Forest, Ill. There were entries from every one of the forty-eight states and Europe. Open to all golfers using Nadco golfing equipment . . . a verified hole-in-one shot on any recognized course qualifies you.

JACK FLECK

The 1955 National Open Winner who lent his skill to the play-off round of this year's Nadco Hole-In-One Tournament in determining the grand prize winner!

IN THIS ISSUE

Diatomic Clubs

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What Research Has Done to Improve Golf Turf

BY MARVIN H. FERGUSON

Southwestern Regional Director, USGA Green Section
(Address at GCSA conference)

WE have no developments in the field of turfgrass management that are as spectacular as the development of atomic energy, but we have many examples of fundamental research having produced tools that are of great practical importance. Organic chemists through pure research have produced numerous fungicides and insecticides which have an important place in practical turfgrass management.

Practical or applied research is a little closer to our work than is basic research and we have a tendency to appreciate it more. It is the kind of research where one tests herbicides or other materials under a given set of conditions. The best material is found in a relatively short time and the information is ready to be put to work immediately. This kind of research can be done by a golf course superintendent and it is no less important in the overall picture than is the elaborate investigation of a highly trained scientist.

I like to think of all types of research as being parts of a factory for developing building blocks of knowledge. One type of research turns out a particular type of block while another phase of research develops a different type block of knowledge. We use blocks of knowledge of many different kinds in building a sound program of turfgrass maintenance. Because we build our programs under different conditions, we may not all use the same kinds of building blocks or we may use them in different proportions.

Sometimes blocks of knowledge are developed prior to the time our building has progressed to the point where we can use them. A good example is DDT. This compound was first described by a German chemist named Zeidler in 1874. It was not until 1939 that its insecticidal value became known. In 1943 the material began to be manufactured in the U. S. for use by the Armed Forces and became widely used as an insecticide about 1946. Thus a period

of 72 years elapsed between the time this addition to our knowledge was discovered and the time it found a place in the structure which represents your turf management program.

When we contemplate developments of this kind we cannot escape the conclusion that the development of new information is worthwhile even when the newly discovered facts are not immediately usable. Sooner or later we are quite likely to find the place where these building blocks of knowledge can be incorporated into our structure.

Ten Years' Contributions

Let us enumerate some of the positive contributions that research has made to the business of turf management in the last 10 years. We think that research produces results slowly and to get a better measurement of progress we must pick out some reference point in time past.

In enumerating the contributions we do not differentiate between practical "on the golf course" research, institutional research or industrial research. All have contributed richly to better turf management.

NEW GRASSES

Merion bluegrass, Meyer Zoysia, Emerald Zoysia, Tiffine bermuda, Tiflawn bermuda, Gene Tift bermuda, T-35A bermuda, Pennlu bent, Pennncross bent, and many other lesser known strains and varieties.

NEW FERTILIZERS

Urea-formaldehyde products and high analysis soluble materials.

NEW INSECTICIDES

DDT, chlordane, benzene hexachloride, aldrin, dieldrin, endrin, isodrin, methoxychlor, parathion, heptachlor, toxaphene, systox, and many others.

NEW FUNGICIDES

Cadmium compounds, new organic mercury materials, and complex mixtures of fungicidal materials for control of a broad range of pathogenic fungi.

NEW HERBICIDES

2,4-D is a little more than 10 years old but many new formulations and methods of use have evolved in the last 10 years.

Potassium cyanate, phenyl mercury compounds, methyl bromide, disodium methyl arsonate.

NEW TOOLS

Aeration equipment, vertical mowers, power sod cutters, improvements in older standard items of equipment.

Somewhat less definite but equally important are the contributions to a better understanding of many standard practices such as irrigation, fertilization, cultivation, physical characteristics of soils, and thatch control. This list of improvements is rather impressive when we remember that it represents only ten years of progress.

I am sure that any one of you today would feel that you were working under a severe handicap if any of these tools were taken away from you. You could not provide the excellent golf turf that is demanded today if you were 10 years behind times.

If we were to use February of 1926 as our reference point from which to measure progress, the developments would be even greater. The Bulletin of the USGA Green Section for 1926 contains the address by Dr. R. A. Oakley, made at a meeting of the Royal Canadian Golf Assn. in Toronto on February 6, 1926. The title of Dr. Oakley's paper was "Contributions to Greenkeeping by the Trained Investigator." Dr. Oakley listed two general ways in which a trained investigator might contribute to greenkeeping. These ways are "(1) by exposing mysterious and fake practices and materials and doing away with honest but erroneous practices, and (2) by making discoveries in new lines." Fortunately, nowadays we have few "mysterious and fake practices" which need exposing. We believe trained investigators are "making discoveries in new lines."

Dr. Oakley's paper also sheds some light on the status of pest control in 1926. I should like to read three paragraphs of his paper to you.

"Putting greens have their diseases and insect pests. Fortunately in Canada the notorious disease of putting greens called brown-patch is as yet not a serious problem. Southward in the United States it constitutes one of the most serious putting green menaces. Trained investigators are at work on it and already have done much in developing measures for its control.

These involve the use of resistant strains of grasses, special fungicides, fertilizers, and the adaptation of certain of the features of culture common to greenkeeping.

"In the fight against earthworms and insects which injure turf, the trained investigator has helped and promises greater help. The improvement of the carbon disulfid emulsion method of exterminating grubs has assisted very greatly in solving the problem created by the June beetle, Japanese beetle, and others of their kind. Within a few days there will be published the results of three years' experiments which point quite clearly to the possibility of rendering the soil of putting greens immune to the attacks of earthworms and grubs by mixing with it certain substances that are poisonous to these pests but are not harmful to the grasses. Lead arsenate and sodium silicofluoride have been used very successfully in experiments, but a large number of others will be tried out thoroughly. This line of investigation promises much. "

Diseases, Pests Secondary

"Diseases and insect pests are serious enough, but after all are secondary as compared with weeds. When the earth was cursed to bring forth 'thorns and thistles,' chickweed, pearlwort, crab-grass, and a dozen other putting green weeds were included with them. The weed problem is always before the greenkeeper. It is his Nemesis. Thus far hand methods have been his heavy artillery in the fight against nearly all of the important putting green weeds. Relatively recently, however, careful investigations have pointed to another and simpler method of warfare. In brief, it involves the systematic and continuous use of such fertilizer as ammonium sulphate and ammonium phosphate, nitrogenous fertilizers which tend to produce an acid condition in the soil. The explanation seems to be relatively simple. The best northern putting green grasses — that is, the bents — are able to thrive on soils that are regarded as highly acid to a much greater degree than can the weeds that compete seriously with them on relatively alkaline soils. Fertilizing to produce acidity in the soil, then, is the greenkeeper's hope in his fight against weeds in the future — not all weeds probably, but the most troublesome ones. This means that he must avoid lime or similar alkaline substances which have been used extensively either as soil amendments or fertilizers in the past."

Of course, we believe now that the theory of producing acid soils to control weeds was a faulty one. I believe you will agree, however, that pest control is easier now than it was 30 years ago today.

Thus far, we have considered the contributions that research has made in the matter of tools for turf management. What of the future? Is research being done at the present time going to contribute to turf excellence in the future?

We believe the answer is YES. There are approximately ten times as many investigators in the field of turfgrass research today as there were ten years ago. About half of the state experiment stations have some turf investigations in progress. There is a greater awareness of the value of turf than ever before. The individual who owns a lawn or the public authority which maintains a park area has a stake in better turfgrass management. As greater pressure is brought to bear upon state institutions in behalf of turf research, more effort is going to be directed to the solution of turfgrass problems. Much information that is developed as a result of this demand will be directly usable on golf courses.

There can be little doubt that research will continue to produce building blocks of knowledge or tools whereby a turfgrass manager can do a better job. Whether these additional tools contribute to better turf for better golf depends entirely upon the golf course superintendent.

Coca-Cola Refreshes Jaycee Junior Golf Program

The Junior Chamber of Commerce 11th International Junior golf program will be launched this spring in cooperation with the bottlers of Coca-Cola throughout the country and National Golf Fund. This program, which each year gives more than 30,000 junior golfers an opportunity to compete, is conducted through community and state qualifying rounds by Jaycees.

The Fargo (N.D.), Jaycee chapter will be host to this year's international tournament which will bring a field of more than 200 junior golfers, in teams of four, from the 48 states, D.C., Hawaii, Canal Zone and Canada. This is the first Jaycee junior tournament to be played on a municipal course. The Fargo course is a championship layout, designed by Robert Bruce Harris.

Use Buyers' Service — Page 125

Pro Shop Safe Deposit

At the pro shop of Jackson Bradley at the River Oaks CC, Houston, Tex., in a most convenient location near the sales register, ball and accessory counter and telephone, is a "Ladies' Purse Rack."

Here the ladies can leave their



Jackson Bradley Pro Shop

purses while they're playing or practicing. It is a greatly appreciated service for the women players since women's lockerroom facilities are not especially handy — as is the case at most clubs.

Services for women members pay big returns in pro shop sales and publicity. Another storage service that women appreciate in a pro shop is a shoe storage rack where the ladies can change and store street or golf shoes. Orville Chapin, pro at Ft. Wayne (Ind.) CC, has such a rack in his shop and it's used, and appreciated.

Grau Out of Hospital

Fred V. Grau, noted turfgrass authority, spent ten days in a hospital repairing torn ligaments in his back. In leaving the Penn State conference he was shifting a bag of material in his car when he injured himself.

Fred missed the Purdue meeting for the first time in years. Got some needed rest in dry dock but quickly started writing and answering West Point Products' mail from bed.

Upon getting on his feet again he raced to New York to address the annual meeting of the Atlantic Seedsman's Assn.

Special memo to All Home Pro

This ad is one of many scheduled to appear in 1956 issues of Sports Illustrated, Time, Golf World, Golf Digest, Golfing The Gaffer and others.

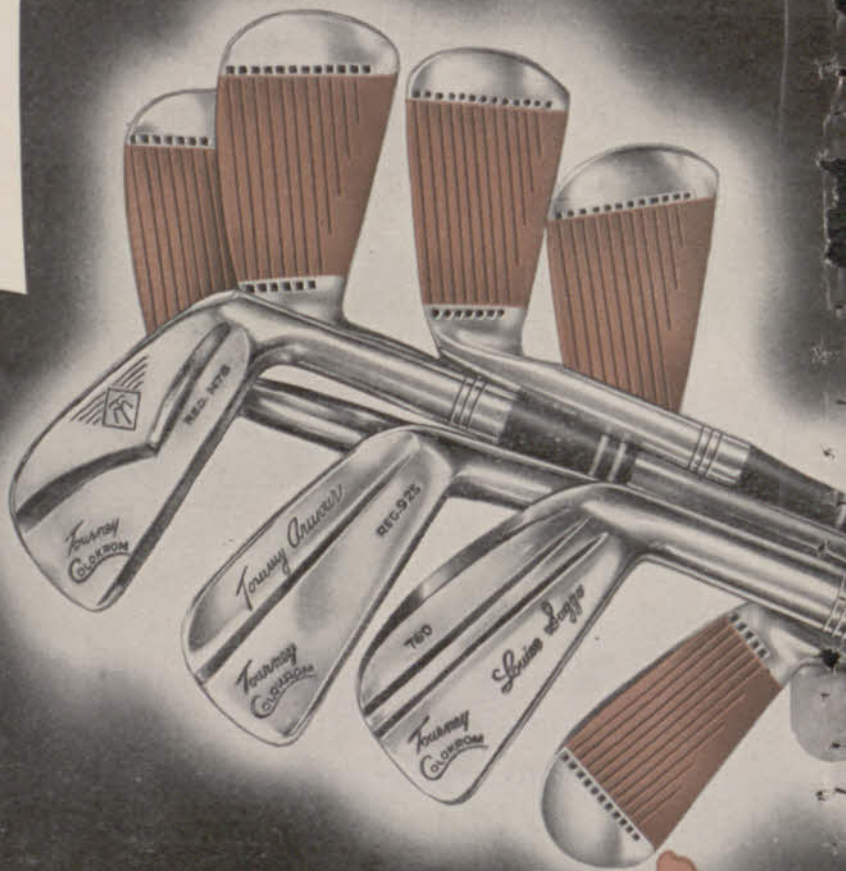
We're telling the world about MacGregor Golf Equipment in a powerful advertising program that continues to back your selling efforts.

MacGregor



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Big and Beautiful

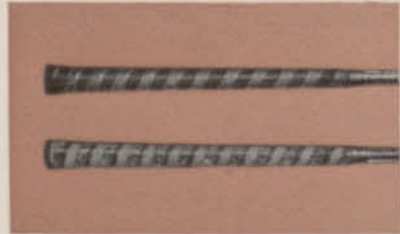


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Colokrom Irons and their
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You'll start enjoying your
golf more.

No other clubs let you enjoy your game so much

Colokrom irons bring out the best in *your* swing. Each one has largest effective hitting area of any comparable club made today. Two-tone scoring on face automatically helps you address ball correctly. Bronze portion of face actually "grips" ball at impact, gives more "feel" and better control of every shot.

Colokroms are made with True Temper shafts built to MacGregor's exclusive patterns. Your choice of new Tri-Tac grips or spiral-bound calf-skin leather grips.



Tri-Tac
Grip

Calfskin
Grip

MacGregor Colokroms are *prestige* irons . . . the most admired, most wanted of the world's golf clubs. Available in three models—MT, Tommy Armour and Louise Suggs—at all pro shops in the U.S., Canada and nearly all parts of the world.

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THE MACGREGOR CO., Cincinnati 32, Ohio
Golf • Tennis • Baseball • Football • Basketball

The 421-yard 14th at the new Louviers course winds through a woods to a plateau green.

Company, Employees Collaborate in Big du Pont Golf Operation



By FRED BYROD

IT'S almost impossible for a person to work in the home office or one of the many plants of the giant duPont company in the Wilmington, Del. area without golf rubbing off on him.

Of 26,000 office and production employees, approximately one of five is a member of duPont C.C. Associate memberships (for wives, husbands and children of employees) account for another 3,000, bringing the total to about 8,300. When it is considered that in 1946 only 3,200 persons belonged to the club, estimates that the membership will reach five figures by 1957 are not idle speculation.

This rapid increase in membership over a period of a few years made it necessary for du Pont officials to plan expansion of employee golfing facilities as long as three years ago, even though a second 18 holes

had been added to the Wilmington layout in 1950. The result was that a 9-hole course, Black Gates, and an 18-hole course, Louviers, were opened for play in 1955. Black Gates adjoins the main clubhouse at Wilmington while Louviers is located 10 miles away at Newark.

Deer on the Fairways

All in all, 63 regulation holes and 3 practice holes are available to duPont employees. This adds up to the largest golf plant operation in the Middle Atlantic district and one of the biggest in the country.

The Louviers course, a rolling par 70 layout of 6573 yards was hacked out of virtual wilderness and the sight of deer gamboling across the fairways is not uncommon. It was designed by Bill and Dave Gordon, Doylestown, Pa., architects who also laid out the Black Gates nine which is 3193 yards long and requires 36 strokes for par shooting. Louviers, the special favorite of Granville Read, du Pont's chief engineer and a particularly avid golfer, doesn't have a clubhouse but it has excellent locker-room facilities and a fine pro shop, both housed under the same roof.

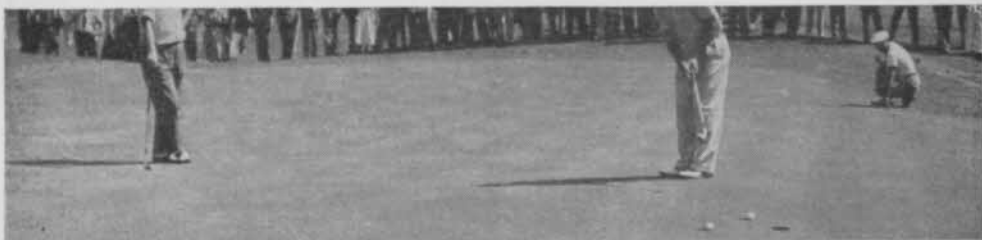
Oldest Course Built in '38

The company's oldest course is the 6207 yard, par 72 Nemours. It was built in 1938. The du Pont, built in 1950, is 6653 yards long and it takes a 71 to break even for the tour. Both of these courses, along with Black Gates, are located near the main



Terl Johnson (right), head pro, and Joe Mazur (2nd from left), ass't pro, talk over the Du Pont golf situation with two members.

the correct approach in . . .



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Pro-Shu Golf Shoes are the golfers' choice. The reason is their correct approach to the footwear requirements of professionals and serious amateurs. Pro-Shu Golf Shoes are built with the **accent on lightness**.

They're a full pound lighter than most golf shoes. In comfort, balance and style Pro-Shu scores again

. . . with a heritage of over sixty-five years experience in creating and custom-crafting quality footwear. When you sell Pro-Shu Golf Shoes, you profit with the finest in workmanship and value.

Write today for color catalog and counter display of styles for ladies and men in stock for 1956.

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April 1956



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Style #375 *. Blucher Saddle Oxford. Welt constructed of finest quality heavy Veal for ruggedness; single sole for lightness. The ideal every day golf shoe. Phillips replaceable spikes. Antiqued Brown only.



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Style #954 *. Blue Llama and genuine White Buck Moccasin. Single sole welt constructed. Phillips replaceable spikes. An extremely lightweight shoe built to give years of comfortable service.

*All Pro-Shu Golf Shoes are fully leather lined.



Pro shop (left) and locker room at new Louviers course.

clubhouse in Wilmington which represents a \$3,000,000 investment in original construction costs and improvements. It was built in 1950.

This huge Georgian style structure has locker facilities for 1,800 men and 400 women. Dining room, offices and grills are air conditioned. Its ballroom can accommodate crowds of as high as 1200 and every Saturday night a dance is held for clubmembers. Many of the duPont company's social functions for employees are held in the main clubhouse which is also available to members for wedding receptions, bridge parties and other gatherings.

Partnership Arrangement

The du Pont golfing picture is not a one-sided arrangement in which the company picks up all the checks and pays all the bills. Initial cost of land acquisition and clubhouse construction are borne by the company, it is true, but from here the employees take over the expense of maintaining and operating the properties. To give an idea of how unrelenting they are in avoiding deficit financing, the employees voted early last year to double club dues in order to meet the increased costs of operating the additional 27 holes.

In spite of the 1955 increase in dues, golfing is brought to duPont employees at extremely low cost. Male dues, after a \$12 initiation fee, are \$36 a year for social membership and \$72 for unlimited membership. Dues for female employees are half these figures, while a special concession has been made to pensioners who are still assessed at the 1954 rates.

Wives pay \$14.40 (social, and \$28.80 (unlimited) for associate memberships; husbands of employees pay the same dues as males who work for the company. Employees' children get unlimited membership privileges for \$1.20 a month.

Thus, a fellow with a wife and two kids can keep the family swinging golf clubs the

year around for only \$129.60 or less than \$11 a month. Where else could he find cheaper entertainment?

Employee management of the four courses is vested in a 15-member board of governors. Advisors to the board are Emile F. duPont, director of the company's employee relations department, and his assistant, Gordon Andrews. Walter R. Kelk, duPont engineering department recreation head, is pres. of the board. He worked up to the top post after serving several years on various committees.

Head man at the main pro shop is Terl Johnson, who with his assistant, Joe Mazur, look after Nemours, du Pont and Black Gates. Johnson, who has been with duPont since 1949, has done much to stimulate golf among the juniors and it has become almost routine for him to conduct five or six group lessons daily among both the younger players and adults during the season. Pro at Louviers is Johnny Long, another du Pont veteran, who was promoted to the post after serving several years as Johnson's assistant.

Although Nemours, which is 18 years old, is listed as duPont's oldest course, the company provided golfing facilities for employees as early as 1923. A nine hole course was built that year on the present site of the duPont course and expanded to 18 in 1924. In the latter year more than \$100,000 was spent in constructing a new clubhouse, which along with a large tract of the original golfing property, was turned over to the company's Research Dept. in 1946. After Nemours was built in 1938, employees had two 18-hole courses on which to play for the next eight years until the property transfer mentioned above took place. Shortly after, adjoining farmland was acquired for expansion of the Wilmington golfing development which was brought to 45 holes last year with the building of the 9-hole Black Gates course.

Now—You can take care of your worst turf insect problem with one powerful insecticide



Brown patches, bare spots—so often the result of soil pests feeding both above and below the ground—can be controlled for long periods with powerful dieldrin. Dieldrin kills white grubs, wireworms, rootworms, root maggots, ants, Japanese beetle grubs, chinch bugs, cutworms, and many others.

Just apply dieldrin at the first sign of infestation. Dieldrin is available in all popular formulations—granules, emulsible concentrates, wettable powders. You can mix it with fertilizer and apply both at the same time.

Dieldrin gives you lasting *one-shot* control—gets all harmful turf insects at the same time. One thorough application of dieldrin controls sub-soil pests such as

white grubs for years. Migratory pests such as chinch bugs are controlled for many weeks. Dieldrin has high chemical stability—soils that are highly acid or alkaline do not affect dieldrin's lethal power. Dieldrin will not harm lawns or plants when used according to label instructions.

• • •

Technical dieldrin is manufactured by Shell Chemical Corporation and sold to well-known insecticide manufacturers for sale under their own brand names. Try dieldrin this season and you will agree that dieldrin is one of the most effective turf pest controls available. For further technical information on dieldrin and its application, write to:

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Penn State's Silver Jubilee conference attracted a record crowd to stow away the banquet then sit back and listen to old timers tell about early days of turf research by college and golf course combination.

Penn State's 25th Anniversary in Turf Research Praised

By A. H. IMHOF

Tributes to Penn State's outstanding work on turfgrasses featured the sessions of the school's 25th annual Turfgrass Conference attended by a record crowd of 250. Sessions were held in the Nittany Lion Inn on the Penn State campus.

Speakers for the silver jubilee banquet declared that research and education in the turfgrass field at Penn State have won national and international recognition. Many paid special tributes to Prof. H. B. Musser who has headed the experimental work, taught classes, and served as chairman of the conference program.

Weighty topics and academic speeches were enlivened at every session by the contagious humor injected by Joseph Valentine, supt. of the Merion GC, Ardmore, Pa. who was among the original group to ask Penn State to do special work on turfgrass in 1929. Valentine recalled many interesting developments down through the years in which he has continued to serve as chairman of the Turf Research Advisory committee.

Valentine's Day

At the anniversary banquet it was Valentine, early in the evening, who set the informal pace for the series of greetings and tributes paid to virtually every segment of turfgrass interests of Pennsylvania, several other states and Canada. Dr. H. B. Sprague, head of Penn State's Agronomy Department, was M. C. for the banquet.

After Dr. Lyman E. Jackson, dean of



Joe Valentine (L) recalls the lighter side of the start of golf course research as he addresses the Penn State banquet. On Valentine's left are Dr. H. B. Sprague, who MC-ed the banquet; Dr. Lyman E. Jackson, dean of Penn State College of Agriculture and Dr. Austin B. Pa'rick, agronomist of USDA who directed Penn State's first conference.

Penn State's College of Agriculture opened the conference with a welcome and Dr. D. R. McClay explained new courses being launched for turfgrass management, the sessions really got down to business. Dr. W. H. Daniel, of Purdue University spoke on "The Riddle of Bentgrass Summer Rooting" citing some of the research under way to point up his remarks.

Reviews Canadian Problems

C. E. Robinson, consultant for the Royal Canadian GA declared "The Canadian people are indebted to Prof. Musser and to Penn State" for many developments in turf work now under way. In his talk,