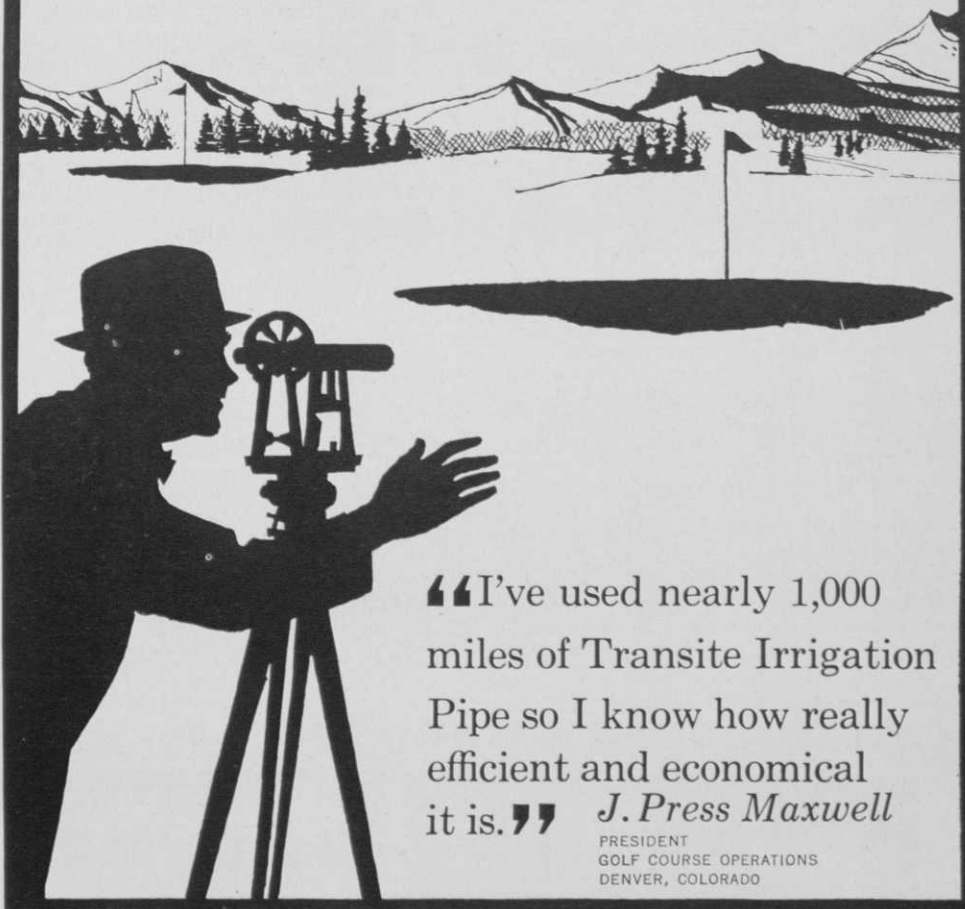


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Golf Day Fund of \$52,000 Distributed by NGF

National Golf Fund, which allocates money raised by the PGA through the annual Golf Day, recently distributed \$52,000 to various golf enterprises. In "Beat the Champions" (Jack Nicklaus Gary Player) nationwide competition at about 1,500 clubs last year, the \$1 entry fee netted \$15,000 more than the previous year.

The PGA, which sponsors the event, gets the smallest portion of the proceeds. They are divided among educational programs (48 per cent), golf charities (27 per cent) and caddie scholarships (25 per cent). The USGA green section turf research and educational operations at the Fund's annual meeting held on Feb. 24 at the PGA National club, were allotted \$10,920 and the GCSA research and scholarship fund, \$6,760.

Charity Recipients

American Women's Voluntary Service, United Voluntary Services, National Amputee Golf Association and the PGA Relief and Benevolent divided \$14,040 as golf charities recipients and 17 caddie scholarship funds, headed by the Western

Golf Association Chick Evans fund, received \$13,000.

Harold Moore was re-elected National Golf Fund president, Herb Graffis, vp and Thomas W. Crane, secretary-treasurer. The officers and Curtis Person, Sr., and newly elected Mrs. Glenna Collett Vare, are directors.

Joseph C. Dey, jr., Mrs. Lillian Harlow, George L. Hall, Charles Bartlett, Francis W. Sullivan, Lincoln Werden, Charles Laws, Dan Thornton and Charles Coe are members of National Golf Fund, Inc. All officers and members serve without pay or expenses.

Chicago Golf Show

Chicago's third annual golf show and exposition, April 3-6, gives indications of being the greatest ever, according to Harry Pezzullo, president of the Illinois section of the PGA, sponsor of the event. Moving the show out of a Loop hotel and into spacious McCormick Place insures more room for exhibitors. Free instruction and analysis by Illinois pros on the show's driving range, putting greens and sand traps will be highlights of the event.

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(Pat. Pend.) For Further Information Write or Phone

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Milorganite remains the same because there is nothing we could add to it that would make it any better. It is as simple as that. Nationwide tests prove Milorganite alone outperforms mixtures, ammonium sulphate, ammonium nitrate, urea, leather tankage, castor pomace, and all four ureaforms.

Unquestionably, Milorganite is the best activated sludge. It is highest in nitrogen, lowest in inert matter, and the only one that is granular and dust-free in its original form.

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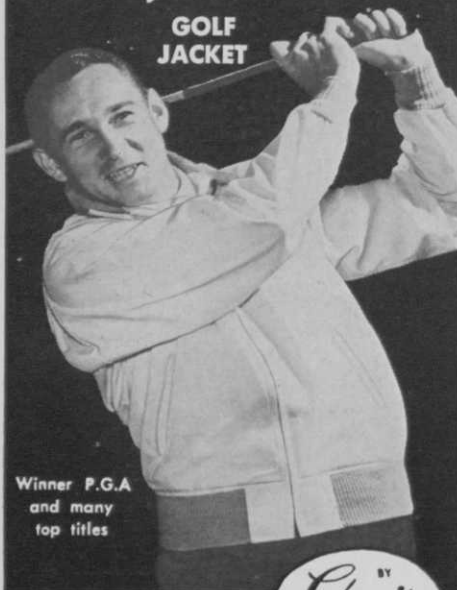
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Retail about \$13.95

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Neat collar looks
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GCSA Convention

(Continued from page 98)

thinking fell out of favor to the extent that the element has become somewhat neglected. Potassium, too, has long been something of an enigma. Some people argue that although plants readily absorb it, it is in reality a luxury product. Others, though, say that since potassium stimulates the production of necessary carbohydrates, it fortifies the plant against several types of disease, plus winterkill.

Ferguson's conclusion: No element can be totally neglected. A few veteran turfmen can detect when one or more elements are lacking. For those who can't, the soil test is the only reliable guide.

Nutrient Deficiency Effect

According to Jim Love of the University of Wisconsin, a good deal of work has been done in detecting nutrient deficiencies and their effects in plants other than turfgrass, but it has only been in recent years that grasses have been studied in this light. Early investigations made by Love covered the effects of withholding the major elements, nitrogen, phosphorus and potassium, in addition to calcium, magnesium and sulfur. A report of these studies appeared in the Sept., 1962, issue of *Golfdom*.

Research Being Continued

More recently, Love has expanded his investigations to take in such elements as iron, manganese, sulfur and zinc. Plants originally are grown in a complete nutrient solution and then each of the elements mentioned above is withdrawn, one at a time. The experiment is repeated so that the chance of making incorrect observations is minimized. When an iron deficiency shows up, the blade at first turns yellowish-green and then lapses into a dead white. Lack of manganese also produces a yellowish-green effect, which is similar to that when potassium is withheld, and eventually the blade begins to fold and then becomes limp. When zinc is withdrawn, the blade takes on a metallic sheen, and when the plant is taken off sulfur, it develops a powdery mildew effect.

Other conclusions that were reached as the result of Love's studies: In untreated areas such as roughs, iron is the most plentiful of the minor elements, its content being 25 times greater than such as magnesium and almost infinitely more



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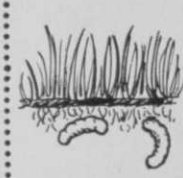
Does away with fairway weeds . . . fast!



Stops mold producing fungus in its tracks!



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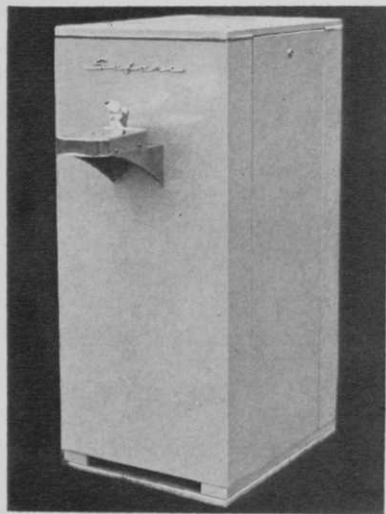
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abundant than copper and zinc. Potassium content of untreated soil is ten times that of nitrogen and 20 times greater than phosphorus.

Fourth Session

It Was Mike O'Grady's Finest Hour

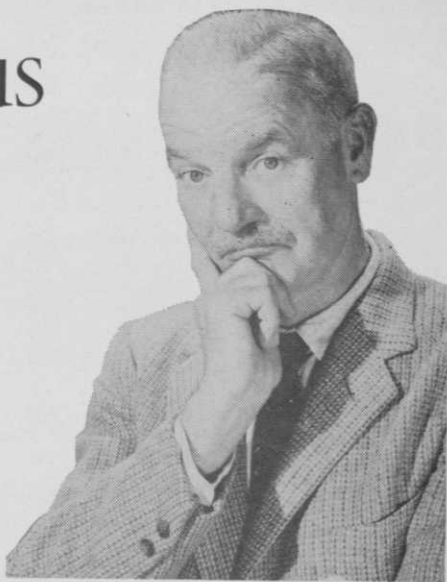
The Thursday morning session was dedicated to turf management students, several of whom came from nearby Penn State and a few from the U. of Massachusetts, to witness the GCSA proceedings. It was fitting that scholarly **Fred Grau**, Hercules Powder Co. consultant, was in charge of the program. His speakers' roster included **Michael J. O'Grady**, supt. of the CC of New Bedford, Mass.; **Prof. Joseph Troll** of the Stockbridge School of Agriculture of the U. of Massachusetts; **Dr. Joe Duich** of Penn State; **Sheldon R. Betterly**, supt. of Chantilly National G & CC, Centreville, Va.; and **Sherwood Moore**, past GCSA president and Winged Foot's supt.

Mike Gets A Shock

There isn't much doubt that Mike O'Grady made off with this year's GCSA show. Upon being introduced, Mike was billed as a native of County Cork, but he quickly disavowed this, saying he was born dangerously close to Northern Ireland and, as a consequence, damn near became disqualified for the Irish Republican Army. At this, Mike momentarily buried his intertwining shock of gray-red hair in his hands, quivered, quailed and emitted a banshee cry but then manfully recovered. To show you that a man can forgive and forget, three minutes later Mike was allowing that the present Queen of England is a charming lady, indeed, and that he has no immediate quarrel with the Duke of Edinburgh.

O'Grady's stint for the day was to dis-course, with the aid of slides, on the history of turf maintenance and equipment. He went back to near medieval times, picked up the Pennsylvania side-winder, the Wellington mower and the worm rake and came forward to an era approaching the horse and haycutter. Then he digressed to call down blessings from all the heavenly quadrants upon Morley, MacGregor, Piper and a half

Be Suspicious

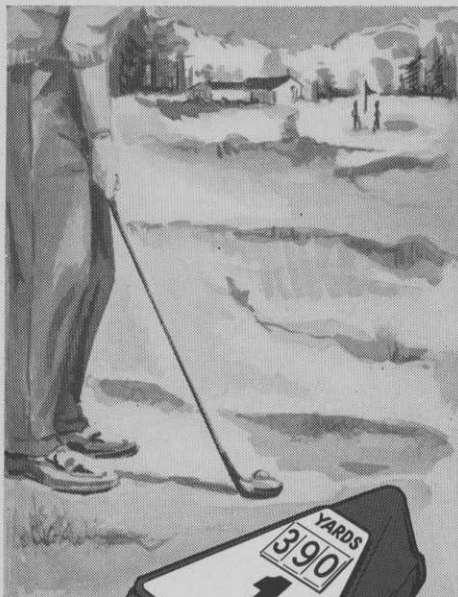


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Rutgers Given Funds to Study Pesticides

A \$1 million study of how pesticides influence the balance of nature will soon be started by Rutgers University. It is being financed by the Public Health Service.

The eventual fate of chemical pesticides — involving unintended harm to man and other living things — has been a controversial subject since Rachel Carson's "Silent Spring" was published two years ago.

A staff of 30 scientists at the Rutgers College of Agriculture will search for pesticide residues in soil, water, fish, insects and plants and determine their effect. The appropriation, actually totaling \$1,074,000 over five years, is the largest single research grant the school has received in its 198-year history.

dozen other of the old stalwarts who pioneered turf management.

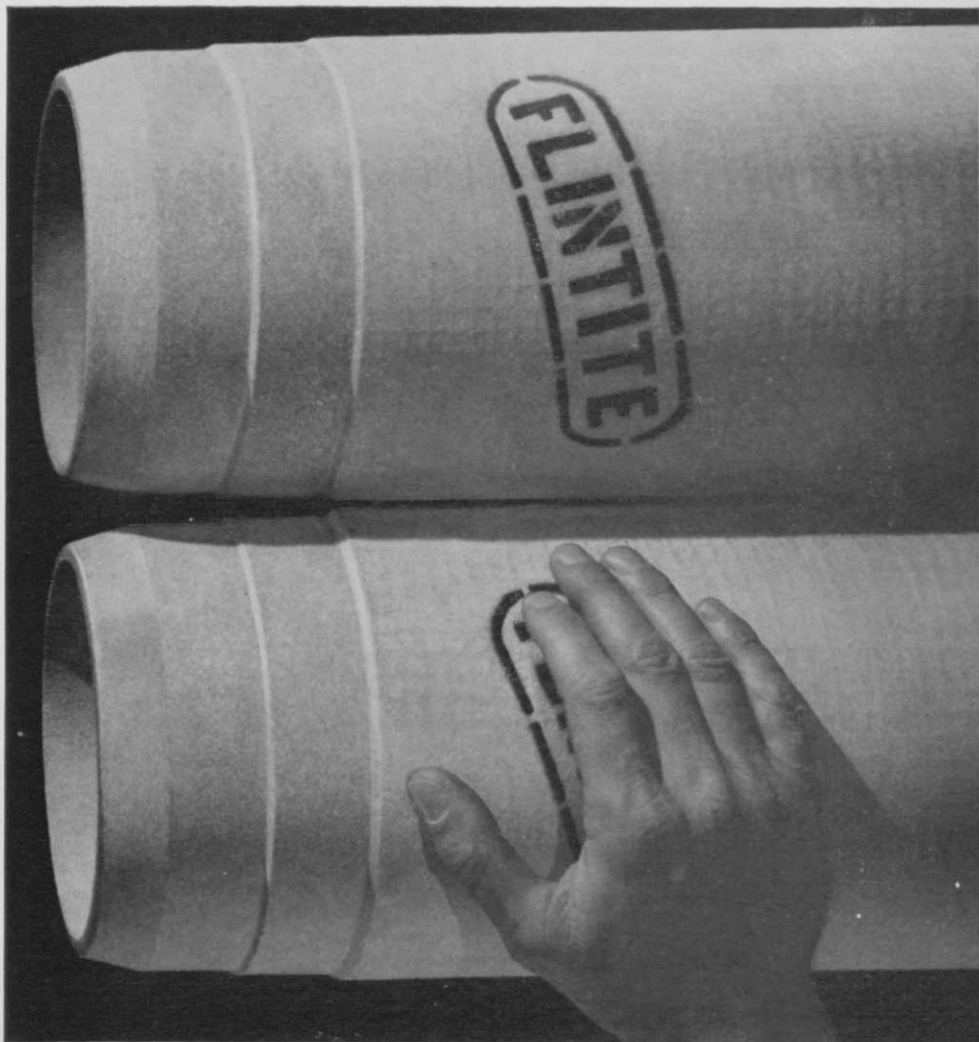
The fact that Mike never did putt out after he reached the sand greens bothered no one. History was incidental. The audience was completely enraptured by that soft New Bedford accent that is still heavily flavored with Gaelic, and there isn't much doubt that O'Grady could have gone on weaving his spell until lunchtime even if he had been discussing atomic theory or solar dynamics. But the clock has a way of speeding up when a fellow like Mike is talking.

You put on one hell of a performance, Mike O'Grady!

Describes Two-Year Course

The purpose of the U. of Massachusetts' two-year course, according to Joe Troll, who followed O'Grady on the program, is not to turn out a finished product who is capable of handling a supt's job upon receiving his certificate, but to prepare the student to take over within approximately two or three years. To be admitted to the so-called winter school, the applicant must have a high school diploma but he isn't required to pass the college board exam. After matriculating, the student divides his time between attending school and working at a course in an on-the-job-training project.

The average age of a two-year student,



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Anyone can install in seconds—no skill or experience required. The **only** ferrule that stretches **intact** over the **large** end of a bare shaft and returns to shape.

Made of good-looking, thoroughly baked black vinyl, the Grip-Gard Sleeve* removes forever the problem of wrinkled tapes and jagged ends when replacing golf club grips. Its taper is specially designed to fit the shaft and grip of **any** iron or wood. No glue required.

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Troll said, is 19 years. He has an I.Q. of around 107 and ordinarily he has either a caddie or course laborer background. In his first year he gets a concentrated dose of agronomy, floriculture and entomology; irrigation, mapping, landscaping and record-keeping occupy him the second year. Usually, he belongs to the Turf Management Club, a social organization. Approximately half of the two-year graduates are employed as supts. immediately upon leaving school, and more than 75 per cent choose to work on golf courses in preference to getting into other fields connected with the turf industry.

Penn State's Four-Year Course

Penn State's four-year turf course was described by Joe Duich, who is distinguished not only as an educator but as a researcher who has had a great deal to do with the development and refinement of Merion bluegrass. In recent years, the agronomy student at Penn State has been steered away from specialization. There is more emphasis on the humanities and social science, particularly in the first two years of school, and on math, statistics and

physical and biological sciences the last two years. About 35 to 40 per cent of the agronomy student's time is spent in studying subjects directly related to his major.

"The purpose in giving a student a wider range of courses," Duich said, "is to make it possible for him to go in several directions upon receiving his diploma. We recognize that golf course work is quite highly specialized, yet in recent years the courses themselves have been asking us to send them men who are more than turf specialists. This indicates that they are looking for persons with management as well as technical capabilities."

A reassuring trend noted by Duich is that in the last two or three years several chemists and teachers, and even a psychologist, have enrolled in Penn State's two-year turf school. This indicates that the field is being recognized for the promising potential it offers. On the other hand, though, only about one of four Penn State turf grads have gone into course work in recent years.

Discusses College Training

Sheldon Betterly, a 1959 Purdue graduate who helped supervise construction of