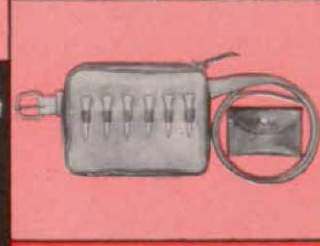


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Researcher Says 2,4-D Not Harmful to Animals, Humans

Following a report that more than one hundred birds of possibly ten different species were found dead on an Indiana farm in May as the result of ingesting a weed spray, R. Milton Carleton of the Vaughan Garden research center in Chicago said that he doubted if the facts were correctly presented.

As for the lethal effects of 2, 4-D, supposedly responsible for the death of the birds, Carleton pointed out that the herbicide is not toxic to insects, animals and humans. He said that he had worked on the development of the material as early as 1943 and even then researchers were impressed with its lack of toxicity to anything other than plants. Since then, Carleton said that he has repeatedly drunk solutions containing enough 2,4-D to kill weeds in a 100 square foot lawn area without suffering any ill effects.

Carleton questioned whether as many different species as were said to be killed by the weed spray could make their habitat on a small farm. Robins, barn swallows, purple martins, kingbirds, redwing blackbirds, bluebirds, wood thrushes and other thrushes were reported to have been killed. He maintained that these birds usually aren't found living closely together and a farm capable of maintaining them would have to be several miles in area.

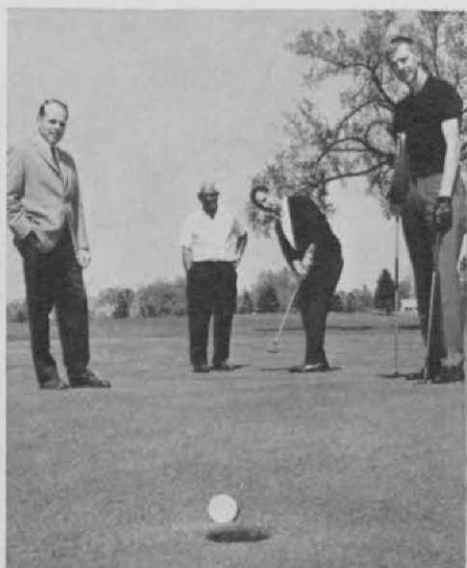
Say He Doesn't Know Birds

Several persons who wrote to a Chicago newspaper contended that although Carleton may be correct in stating that 2,4-D isn't injurious to birds, he is no ornithologist. All of these people, who either live on farms or had at some time during their lives, stated that it isn't uncommon for perhaps 50 different species of birds to live on farms encompassing no more than 100 to 200 acres.

"Hole Notes", published by the Minnesota GCSA, told of an incident where a Minneapolis TV station showed pictures that tended to overdramatize the death of robins caused by a pesticide. There was no clearcut proof, said the "Hole Notes" account, that a pesticide was responsible. It went on to say that the misuse of chemicals can't be defended, but there seems to be a tendency to brainwash the public as to the harmful effects of herbicides and pesticides now that Rachel Carson's "Silent Spring" has been published.



Jim Cihak, Coach Robert Lamson, Ted Bailey and Eliot C. Roberts, agronomist, all of Iowa State University, are shown in front of memorial plaque at the school's Veenker Memorial GC (above) and checking a green (below).



Jim Cihak and Ted Bailey, turf management majors at Iowa State play on the school's golf team partly because Eliot Roberts of the agronomy school insists that his students play golf. Turf management, says Roberts, involves not only knowing soils, fertilizers, disease and insect control but understanding the problems a golfer has to contend with.

A Senate subcommittee has been holding hearings in recent weeks to determine whether congressional action is needed to prevent possible harmful effects of the allegedly increasing use of pesticides, particularly in farm insect control.

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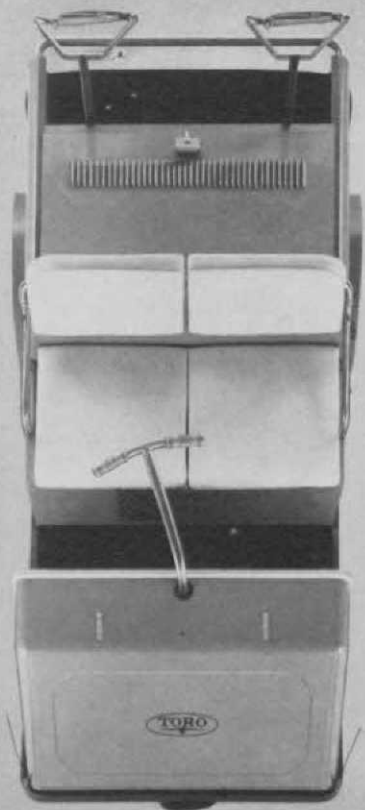
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OREGON, PORTLAND, Oregon Toro Distributors, BE 4-9551, B. L. Larson

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NASHVILLE, Ernest Hardison Seed Company, AL 6-2659, Charles Travis

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EL PASO, Myers Co., El Paso, Inc., KE 2-5405, Eugene Dale

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UTAH, SALT LAKE CITY, Salt Lake Turf Equipment, 486-9375, Karl Burge

VERMONT (see Bronson-Townsend, Hamden, Connecticut)

VIRGINIA, RICHMOND, Richmond Power Equip. Co. Inc., EL 5-7831, George Wingo

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GRAU'S ANSWERS TO TURF QUESTIONS

BY FRED V. GRAU



Things Have Changed in Some Seven Years

Some seven years ago this department received a letter which came as a voice crying in the wilderness. Until now it never seemed appropriate to reveal the contents of the message because it was so full of heartbreak and bitterness. We reproduce it here with certain changes to protect the identity of the principals. In a large measure it will reveal how far we have come in the profession of turfgrass management. Certainly it gives pause for thought and reflection.

Dear Fred:

• I left the golf course field in discouragement but plan to return. I believe the problems I have encountered in the greenkeeping field would be of interest to you. I have been around courses since boyhood as a caddie, caddie-master, special patrolman, assistant professional, greenskeeper (sic), also an exponent of _____ Short Course in turf culture with Professors X, Y and Z. Naturally I felt that I was qualified before I came to

..... Here is what I find.
Town Name: They strew chicken manure, feathers included, over the fairways. As we know, the nitrogen content is high enough to cause burning and it can't help the turf until the nitrogen is leached into the root area. Toadstools all over the greens denote poor drainage. Applied for work — no soap — all filled up.

Scorched Earth Policy

Went to (Town Name) — While talking to the manager on the edge of a putting green (scorched to hell and back with a misapplication of commercial fertilizers) he said they don't need anyone to look after their course! Tsh! Tsh!

Figured I'd start at the bottom again so went to (Town Name) and filed an appli-

cation for a civil service job with the municipal course as a common laborer. I was astonished to see the "greenskeeper" mothering a patch of fescue. Innocently I asked him what it was for. He told me in a fatherly way it was for a new putting green. This will wear better, he said. I asked coyly if it will stand $\frac{1}{8}$ or $\frac{3}{16}$ inch close cutting. "Oh sure," said he. Later, on the same course while cutting a cup hole on a putting green, I ran into a black gummy stratum which I knew was a derogatory type of peat. I wanted to get an "expert" opinion so I asked the greenskeeper what it was. "Oh", he said, "That! That's peat moss. Some stupid college guy advised it to retain moisture and to soften up the greens. Heck, it only makes them harder." To him there is only one type of peat moss.

No Soil, No Money

I quit this job and went after a job at (Town Name) municipal. I was told that, yes, they could use a man like me but first I would have to go through an interview with (name) golf course architect. The first man, of course, wasn't qualified to see if I was qualified, hence the architect quiz program. The architect OK'd me from a technical viewpoint so I went to (Town Name). Here I found no soil, no appropriation, archaic equipment and prison labor, and five men illiterate from a golf standpoint.

I had to make the soil from sharp sand and manure. I had the equipment repaired at the city shops and then I started the golf education of my five steady employees. I had the audacity to ask that they learn to play the game so they would know enough not to start up a truck during a player's backswing; so they would know when a cup was set too high; when and where a tee marker should be changed, and why. Resistance? Yes, lots

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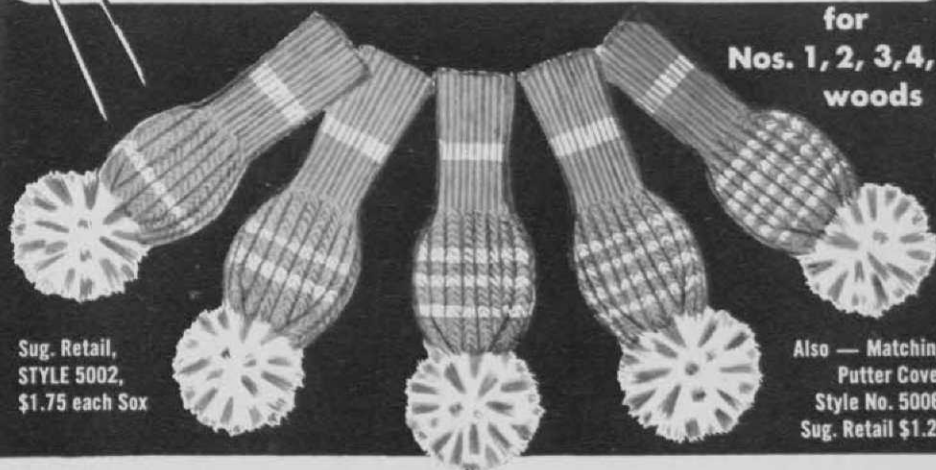
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Please your golfers and **DRIVE IN A STEADY PROFIT** with popular-priced Club Sox — the handiest, handsomest covers ever designed to protect favorite woods. **Style 5004** features a **KNIT ORLON LINING** and has numerals 1, 2, 3, 4, 5. **Style 5002** has 1, 2, 3, 4 or 5 narrow stripes to indicate club number. Both styles are washable high-bulk orlon — won't fade, stretch or shrink. Order Club Sox now in Red, Black, Gold, Green, White, Gray, Beige, Brown, Sapphire Blue, Sky Blue, Red/Black or Black/Red. All with 2-tone peppered Pom. Packed bulk, any assortment or gift-bagged in sets.

Write for full-color, price-listed literature on **CLUB SOX** and other profitable Pro products — Pom-Tam knit sports caps • vinyl Sports Sacks • vinyl Foot-Lights slippers • Stretch Head Bands for fair-lady golfers.

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Write for complete information.

of it. "Who is this Johnny-come-lately? Why change or train the personnel? They stuck with us during the war — why change?"

Bat Manure Bonanza

Then there was the local man who discovered a bonanza of bat manure. The club wanted to buy it. I mixed it in surface and subsurface tests but no progressive results were noticeable in 15 days. I knew why but I didn't elaborate. This type of manure was pellet-like and had a shell-like substance similar to rice. Pulverizing would probably make its fertilizing value available. However, I checked out.

After that I gave up the golf course business but never got it out of my blood. Now I come to the reason for this gripe. If you were I, and wanted to go back to golf course work, what would you do? The greenkeeper may not hire you if you know too much. He won't hire you if you know too little. The green chairman knows what he wants but usually isn't qualified to pass judgment. The newspapers here never carry an ad for golf course personnel.

No Exams Given

The U.S. government has hundreds of golf courses but no examinations for greenkeepers. The city of (Name) doesn't either. That great metropolis took a tree climber and pruner and put him in charge of all the city courses. Very few people aside from myself know how many square feet of putting surface were ruined thru his ignorance of fertilization and even the setting of cutting machines, with one side scalping and the other side top clipping.

I am 47 years old and I am in the market for a job preferably in (State), salary no object. I will understudy a weak greenkeeping setup and, being rusty, would welcome a job of any kind on a course until the golf industry catches up with the rest of the business world in having a central hiring and firing system. My tone is naturally bitter and I feel I wasted time and study in a neglected profession. Although you may not agree with these facts I want you to feel free to use any material herein to possibly further the employment of golf course personnel who don't know where to look for work.

There is no publishable answer to the many questions in the foregoing letter. It describes all too clearly some of the difficulties encountered when a profession is in the process of finding itself and growing up after having emerged from

the "Dark Ages" era of "I've Got A Secret — find things out for yourself!"

For the real answer to this outpouring of misery just look at the status enjoyed today by the professional supt., the efforts of his association to place well-trained men in responsible positions and support of scholarships. Look too toward the universities that are training men in fundamentals, their talents to be sharpened by practical experience under competent supts. Consider also industry which has given generous support to the entire framework.

Poa Annua Control

Q. How much arsenate of lead should we use on our bent greens to help control poa annua? Why is it important to keep phosphorus levels low? (Virginia)

A. About 10 pounds of lead arsenate per 1,000 square feet a year is beneficial in reducing poa. Two applications of 5 lbs. per 1,000 square feet each is a very good plan (spring and fall.) Many who spray insoluble powdered nitrogen on their greens four times a year add 2½ lbs. per 1000 square feet each time to give a total of 10 lbs. for the year.

Phosphorus and arsenic act very much alike in chemical reactions. High levels of soil phosphorus counteract the effect of the lead arsenate. Phosphorus is a decided stimulant to poa and helps the poa to produce abundant seed crops. Research has proved that lead arsenate works best when phosphorus is low.

Wants To Extend Zoysia

Q. We plan to extend our zoysia nursery to all our fairways. At present we have large patches in the fairways and everyone admires it. Can you tell me what is the best fertilizing program for zoysia? (Indiana)

A. Your zoysia, to present top quality turf for play, should have five to six pounds N per 1,000 square feet for the season — equivalent to about 220 to 260 pounds N per acre.

Phosphorus and potash requirements are low, approximating two pounds per 1,000 square feet of each for the season, which can be supplied once a year with 400 pounds per acre (10 lbs./M²) of 0-20-20, applied spring or fall.

The best program is one which supplies nitrogen steadily throughout the season. With easily-nitrifiable materials you would make five or six applications through the season at one pound N per 1,000 square feet each time.

Aerifying Program

Q. I am new on a city course. We have thatch ¾ of an inch deep. We have an aerifier and a verti-cut. We aerified in April, will repeat in July, then triple aerify when play stops. Even after a heavy rain and a watering it is like walking on black top. We half filled the

(Continued on page 98)



1927 1,300,000 golfers—and, compared with today, what miserable scores they carded. Then True Temper invented the Step-Down-Design Steel Golf Shaft.



1963 12,000,000 golfers—many with ferocious handicaps. And, over the years, True Temper has made some 50 improvements in step-down design. Have you tried new clubs lately?

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Exterior view of the pro shop at the 67-year old Dayton (O.) CC. Club gets such a heavy play from more than 500 members that starting times have to be reserved five days a week.

Be Alert to Every Possible Sales Opportunity, Says This Pro

That's been Norm Butler's policy for the 25 years he has been in business and he hasn't had many lean seasons



"Too many pros take their market for granted!"

"No member should pay a premium to shop in a pro shop!"

Who is this radical? What's he trying to do to the rest of us — ruin our business?

The radical in this case isn't an upstart professional — one perhaps who is just a few years off a college campus — and has illusions of revolutionizing the pro merchandising picture.

At Dayton Since 1954

He has been around — in fact, for 25 years. His name is Norm Butler and he has been at Dayton (Ohio) CC since 1954. Before this he served several years at the Wright Field course, also in Dayton, and at one time was at Scioto in Columbus.

For a fellow who has been at three choice spots in central Ohio for a quarter century, you'd think that he would feel that he has some kind of a sinecure that should guarantee him a large volume of

Norm Butler (r) is on the verge of closing a sale of a set of irons to Dr. Peter Granson. Butler says pros should sell more clubs.