

THE CONN. CLIPPINGS



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"BIOLOGY AND CONTROL OF A SPECIES OF HYPERODES"

R. Scott Cameron, Cornell University

Damage

In recent years a species of *Hyperodes* has damaged turfgrass particularly *Poa annua* L., on golf courses in the Long Island and Westchester County areas of New York State. Large patches of *P. annua* are killed on greens, aprons of greens, tees, and fairways. Unlike grass damaged by fungi or wilt, many of the grass plants attacked by *Hyperodes* are severed at the base of the stems and lie flat soon after being damaged. Weevil damage occurs in May and early June and larvae, pupae, and adults can be found beneath the damaged turfgrass in mid-June.

Classification

The species of *Hyperodes* involved has not yet been determined. It has been identified as both *H. anthracinus* (Dietz) and *H. maculicollis* (Kirby), but counts of punctures and hairs on specimens of Long Island *Hyperodes* indicate that the Long Island *Hyperodes* are significantly different from either species. Dr. Rose Ella Warner recently classified several *Hyperodes* collected on Long Island golf courses as *Hyperodes* sp. near *anthracinus* (Dietz). The common name of "turfgrass weevil" has been given to the species of *Hyperodes* causing damage to golf course turfgrass on Long Island.

Biology

Turfgrass weevil eggs are deposited between leaf sheaths in *P. annua* stems,

where the larvae hatch after about 5 days and begin feeding. The small turfgrass weevil larvae move about the soil in the thatch and often tunnel into several grass plants. The large larvae appear to be more sedentary as they feed externally on grass stems from a small burrow formed in the thatch and upper soil. Larvae prefer *P. annua* to other grasses, particularly bentgrass and Kentucky bluegrass.

Turfgrass weevil larvae pass through 5 instars in about 30 days before transforming into pupae in earthen cells about 1/4 inch deep in the soil. The pupal cuticle is shed after about 5 days and the collared adult remains in the pupal cell for several days before emerging to begin active feeding. Adult feeding is usually restricted to leaves and upper stems of grass plants and appears to cause little damage. In laboratory feeding trials, adults generally preferred *P. annua* to other grasses. The turfgrass weevil sex ratio is approximately 1:1. No important natural enemies of the turfgrass weevil have been found.

Turfgrass weevils overwinter as adults in fescue grass and among leaves and debris under bushes and trees on or near golf courses. Overwintering adults become active early in the spring, some flying and others probably migrating on the ground to favorable breeding sites on golf courses. On Long Island, there is

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THE GRASS CATCHER

By Charles G. Baskin

"Keep animals and *unprotected* persons away during treatment and while there is a danger from drift or residues. Keep package tightly closed except when removing contents and store in a ventilated place away from foodstuffs. Do not re-use container. Crush and bury when empty. To protect fish and to avoid contamination of domestic waters, do not dispose of any of this material or container in or near any body of water." This was taken for the label of a well-known fungicide that is used for the control of disease on golf courses. How we, the superintendents, handle this and other chemicals will have a bearing on how much longer these chemicals will be available to us. But more important, we have a responsibility to our members, to our employees, to our neighbors and to the general environment to properly handle the chemicals which we have to use. We also have the responsibility to choose the proper material to use. Many times we have a choice of several products to do a specific job, such as, control of chinch bug. Besides the performance records of the chemicals we should consider their effects on people, the soil, chemical life, etc. Let's play it smart

The sun radiates more energy in one second than man has used since the beginning of civilization.

Former New Haven mayor, Richard Lee gave a very interesting presentation on our urban crisis at our last association meeting on May 6 at the Country Club of

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CONNECTICUT ASSOCIATION OF GOLF COURSE SUPERINTENDENTS

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The object of this association is to promote research, education and an exchange of practical experiences in the field of turf grass culture so that the increased knowledge will lead to more economic and efficient management of golf courses and related turf areas.

The CONN CLIPPINGS is an official publication of the Connecticut Association of Golf Course Superintendents.

Charles G. Baskin, editor
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UNION'S 1969 MEDIAN BOOST IN PAY, BENEFITS WAS 8.2%

A new Labor Department report confirms what employees already know — that unions won big gains at the bargaining table last year.

Major settlements covering nearly 2.5 million workers in 1969 provided record increases in wages and benefits, the department's study shows. Among the indicators of union success are:

— A median increase in wages and fringe benefits of 8.2% annually over the lives of the contracts, up from 6.6% in 1968 and 5.5% in 1967.

— Wage increases alone over the contracts' terms averaging 7.1%, up from 5.2% in 1968 and 5% in 1967.

— A median first-year wage boost of 8.2%, up from 7.2% the year before and 5.6% in 1967; labor men continued to seek especially fat pay increases in the "front end" of the contracts to offset fast-rising prices.

The building trades continued to set the pace for other unions last year, winning a median boost in wages and fringes of 12.9%. Major settlements were reached in the metal-working, transportation, lumber, petroleum and apparel industries in 1969.

THE GRASS CATCHER (continued from page 1)

Darien. The attitude of today's youth and the problems they see in today's society were of prime interest. The problems confronting the law enforcement agencies were also discussed.

Mr. James Latham, formerly with the U.S.G.A. and presently the chief field agronomist of the Milwaukee Sewerage Commission, will be the speaker at our next meeting. Jim's "bread and butter" is Milorganite but his presentations never dwell on the subject. This meeting will be held on Tuesday, June 9 at the Patterson Golf Club where Pierre Coste is the superintendent.

The Scholarship and Research Fund of the Golf Course Superintendents Association of America received \$14,300 from the National Golf Fund. This is part of a total of \$110,000 that was distributed by the National Golf Fund from revenues from the PGA-sponsored 1969 National Golf Day. The money received by the Scholarship and Research Fund will be used to assist worthy turfgrass students in their financial obligations and to promote research at the university level for more effective golf course maintenance.

An optimist see an opportunity in every difficulty: A pessimist sees a difficulty in every opportunity.

CAGCS MEETING

Date: June 9, 1970
 Place: Patterson Golf Club
 Fairfield, Connecticut
 Time: 11:00 a.m. to 1:00 p.m. - golf
 5:00 p.m. - Board of Directors
 6:00 p.m. - Business Meeting
 7:00 p.m. - Dinner
 Program
 Speaker: Mr. James Latham,
 Chief Field Agronomist
 Milwaukee Sewerage
 Commission

IN CASE OF ILLNESS

Please pass the word around anytime you hear about illness striking any of our members. Also, give our welfare chairman, Mike Ovian, a call. We would appreciate the help of the wives in this matter.

BIOLOGY (continued from page 1)

one complete spring generation and what appears to be a partial late summer generation.

Control

Twenty-five insecticides were tested on turfgrass weevil adults in laboratory experiments. Several organophosphate insecticides, including Guthion, Supracide, Baytex, and Dursban, were most effective, while several chlorinated hydrocarbon insecticides, including heptachlor and chlordane, were least effective.

The materials which were most promising in the laboratory bioassay experiments, disulfoton which looked promising in 1968 field tests, and diazinon were selected for field testing in 1969. Diazinon was given more emphasis than the other materials because it was being used in large amounts by golf course supts.

Nearly all the 1969 plots treated in both April and May were conspicuously healthier than their surrounding control plots. Dursban applied at a rate of 2½ pounds active ingredient per acre in April and May gave the best control. Diazinon applied at a rate of 5 pounds active ingredient per acre in April and May consistently gave good control, while diazinon applied at a rate of 2½ pounds active ingredient per acre in April and May gave only fair control. The diazinon plots treated only once in mid-April showed considerable damage.

Results of the field plot tests and the operational field trials lead to the conclusion that the turfgrass weevil can be controlled by insecticides when applied at the proper times. To control the turfgrass weevil on Long Island in Westchester County, granular diazinon at a rate of 3-4 pounds active ingredient per acre, or Dursban emulsifiable concentrate at a rate of 1½ - 2 pounds active ingredient per acre, should be applied on suspected problem areas in mid-April and mid-May. These are temporary recommendations until more intensive field tests are conducted to substantiate our experiments.

Reprinted from:
 Tee to Green
 Metropolitan Golf Course Supt. Assoc.
 Gary Crothers, Editor in Chief

A Colorado State University professor has received a \$1,000 grant to investigate his belief that chicken eggs talk to each other before they hatch. Probably for another \$5,000 he will tell us what they say.

TURF MANAGEMENT

A. J. Powell, Jr., Turf Specialist

BEWARE OF "SATCHMO"

Hopefully not everyone has had a "Satchmo" visit his turf operation. But chances are good that "Satchmo" has appeared but was not recognized. "Satchmo", by my definition, is an out-of-town peddler with a "satchel full" of "more gifts than a gift shop". For a minimum order of \$67.00, your wife will receive a new pop-up toaster or knife sharpener. And along with your pocket knife, pen and pencil set and billfold, you can have a choice between a \$17.00 briefcase or your very own manicure set.

Think again before you bind yourself in such a deal. Why is he so generous and your local dealer so stingy? Is he trying to setal your business or is he only concerned about the quality of your turf operation? *Of course*, all of his gifts to you and your wife would not make you feel obligated to him on a return trip. *Of course*, he would not hint around you, your boss, or laborers that you had accepted these gifts. *Of course*, he would not try to increase that minimum order on the next return trip. To be so generous, he must be considering you as very influential among your peers and associates.

What is your first impression of Satchmo? Suppose Satchmo visits a golf course. Inside his satchel of gifts he also carries a 674 page notebook that describes products for the club house ranging from salt to floor wax, products for the golf pro ranging from kilties to marshmallow centered driving range balls, and products for the superintendent ranging from axle grease to chelated iron. Many of his products are similar to those you are presently using, but without the actual label you may never recognize them. Many of his products are "fantastic new discoveries" packaged for your convenience. Hopefully, he comes to you first instead of trying to soft-sell one of your mechanics on the type of tube sealant he needs or your boss on the very recent discovery of "Poa Out" for complete *Poa annua* eradication. Very often his "bag" is name-tossing. John Brown uses six tons per year of his liquid mow and Pebble Run saves \$20,000 annually in labor by using his liquid sand that never needs raking.

If you have time, take a look at his products and judge their worth yourself. Always compare his delivered cost with that of your local dealer. Very often, Satchmo will be able to do no more than read his company's advertisements about the products in question. Play the Agrono-

mist part and question the correctness of the advertisements. Put him on the spot, and he may never return. Although you have been very successful with a cheaper product, he may list 25 reasons why his product is better. Is a free coin purse any reason to switch from a good product to one that you are not familiar with?

Hopefully, you will feel that Satchmo is disrespectful since he is trying to sell you a miracle product. Soil microbes or soil enzymes boxed and ready to mix with fertilizer or water are often sold with astounding assurance that they actually cure soil problems of plant food availability, soil structure, and permeability.

Another product often misrepresented is the surfactant. No doubt, surfactants have been successful for special use situations, but general use to solve fertility or management problems is unfeasible. By decreasing water surface tension, surfactants have been used to relieve puddling in depression areas, to increase infiltration or decrease water run-off on small knolls, and to decrease dew formation. Therefore, know your needs and buy these materials accordingly. The percent surfactant in a material and its residual nature should be considered when comparing prices.

Satchmo practically always promotes liquid fertilizers. He knows that a good turf operation has labor problems and a pressure sprayer. He often stresses that the phosphorus in liquid fertilizers are very soluble and therefore quickly available. Also the liquid material offers foliar feeding and penetrates deeper into the root zone area. Do you believe these suggested advantages?

Concerning phosphorus availability, most granular phosphates are in an available form when applied. However, with either a liquid or granular phosphorus material, if there is complete soil-phosphorus contact, usually 30% or more of the phosphorus is fixed in unavailable forms within a short time. Experiments conducted to date show that usually the same crop responses are obtained with liquid and solid fertilizers when equal amounts of nitrogen, phosphate and potash are applied.

Liquid fertilizers have helped from the labor standpoint for many turf growers because they can be applied through a sprayer. Many liquid fertilizers can be mixed with pesticides that are routinely

applied. The actual effectiveness of liquid fertilizers does not differ greatly from that of granular fertilizers. Before purchasing, compare the cost of liquid versus granular materials that give the same amount of plant food. If the cost of the liquid material is greater, then assess whether the extra cost is worth the handling advantages.

Your local salesman and distributors might not appear to be Santa Clauses, but they are interested in your turf operation. Being concerned is their "bread and butter" and they must give you good service or lose your business. "Satchmo" on the other hand, may only be interested in one or a few purchases because his margin of profit is high and he is not required to consult with you weekly or daily. As professional turf growers, work as closely as possible with your local dealers. And the next time that "Satchmo" visits your turf operation, ask him to accompany you to the next professional turf meeting. His response might amaze you.

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CONNECTICUT CHRONICLES

In the late eighteenth and early nineteenth centuries the Yankee peddler became a firmly entrenched institution in nearly every eastern state. In fact, the Yankee peddlers were supposedly responsible for giving Connecticut its nickname, "The Nutmeg State."

The peddler, a colorful character, traveled far and wide, with horse and wagon or just a knapsack. His wares included tin, clocks, brassware, textiles, and a number of other items.

Some of them, slightly unscrupulous, traveled with imitation nutmegs, made from oak and hickory, which they sold to housewives as the genuine spice. Other peddlers cleverly palmed off worm-eaten nutmegs on unsuspecting people.

These wandering Connecticut "businessmen" soon became a legend, especially in the South, where many of them sold their wares. But, of all the items they peddled, they became best-known for their wooden nutmegs. Almost single-handedly, they were responsible for the growth of the tradition of Yankee ingenuity, and for giving Connecticut its long-famous nickname.

IV!

With the golf season now in full swing, a few notes on the history of the game may not be amiss. One authoritative source says that the Romans invented the game and when they were swarming all over Europe, they took their bent sticks with them and taught local natives the art of the scuff slice and topped ball. The Dutch were enthusiasts for a limited time (too many water hazards, no doubt) but it was the Scots who developed into true addicts. In fact, in the mid-1400's, golf became so popular in Scotland that archery fell into a decline and in the interest of national defense, an edict was passed forbidding the game. As might have been expected, this only increased the number of Scots who decided to throw down the long bow and take up the driver. A century later, golf had become a royal sport. It is reported that Mary Stuart was observed with club in hand only a few days after the murder of her second husband.

Golf equipment has become somewhat more sophisticated since those days, when clubs were carved from a bent stick and the ball was a sewed leather orb stuffed with boiled chicken feathers. Today's most commonly used ball consists of a center, an elastic winding and cover. It weighs exactly 1.62 ounces, has a diameter of 1.68 inches and has 330-odd dimples, each exactly 13.5-thousandths of an inch deep. The dimples presumably give the ball stability in flight, so that when you hit it towards the woods, it most certainly goes into the woods. Why it goes into the woods when you hit it toward the green is one of the unfathomable mysteries of the game.

TOURNAMENT SCHEDULE

- June 9 **PATTERSON Club**
McGloughlin Trophy. Tourney against Metropolitan Section.
Longest drive. Closest to flagstick. Blind Bogey.
- July 7 **YALE Golf Club**
Blind Partner. Blind Bogey. Closest to flagstick. Longest drive.
- August 4 **SHUTTLEMEADOW Country Club**
Superintendent & associates Championships. Closest to flagstick.
Longest drive. Blind Bogey.
- September 1 **HARTFORD Golf Club**
Superintendent - Press. Blind Bogey. Longest drive.
Closest to flagstick.
- September 15 **MILL RIVER Country Club**
Superintendent-Pro-Chairman-President. Shotgun at 12:30.
Along with the 4 man team championship, there will be an individual
Supt.-Pro, Supt.-Chairman, and Supt.-President.
- October 6 **WATERTOWN Country Club**
Conn. State Trophy (net) Flag Tourney. Blind Bogey.
Closest to flagstick. Longest drive.
- November 3 **FARMINGTON Country Club**
Blind Partner. Blind Bogey. Closest to flagstick. Longest drive.
Least number of putts.

MOON DUST

MOON DUST has a high titanium content, is low in potassium and sodium, and appears to lack organic matter. Plants could not grow in moon dust alone, but the dust could serve as a good medium if nutrients were added. Some seedlings of plants, such as tomato, bean, wheat and pine, showed a growth advantage when challenged with lunar material. The most noticeable growth was shown by liverworts, a lower form of plant life. Fern and lettuce grew best on lunar material; however, growth of algae was inhibited initially.

These findings have been reported by Dr. Charles H. Walkinshaw, leader of a team of NASA botanical scientists conducting tests with lunar material brought back by the Apollo 11 mission. The team is evaluating the effects of lunar material on more than 30 species of plants.

A plus benefit of the project has been the development of plant quarantine facilities to permit the production of truly germ-free plants. "This opens significant new frontiers in plant disease investigations and basic research into the functioning of all plants," Dr. Walkinshaw said.

CONN CLIPPINGS

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