

2. To provide a written set of By-Laws and Operating Rules for the Dunedin course.

3. To allow nominations from the floor of the Annual Meeting in the case that less than two nominees for office have been named in writing. This supplements the resolution passed last year. It forestalls the possibility that election time should arrive without nominees; in such case there would be no way to get a name before the meeting.

4. To allow professional applicants for membership to become members after 2 years experience on condition that they are endorsed by 5 Class A Members of the Section where they make application and are then examined, both written and oral, by an examining board. The examining board shall be appointed by the section president.

5. To allow 2 delegates as representatives of the tournament players group at the PGA annual meeting. These delegates to be elected by vote of the recognized tournament players. Expenses of one delegate to be paid by the National PGA, the other's expenses to be paid by the Tournament Bureau. The purpose of this is to have close understanding and exchange of accurate information. VIDEO INSTRUCTOR makes golf lessons worth more

VIDEO INSTRUCTOR enables you to show movies of your pupils in your golf shop without an expensive projector, screen or darkened room. The film can be moved forward or backward at any speed, . . the pupils can SEE what they are doing . . . your instruction gets across . . . sinks in . . . and stays.

It pays for itself quickly by justifying increased lesson charges with more effective results.

VIDEO INSTRUCTOR is being used by many pros who are noted for their resultful teaching. Among them are Claude Harmon, Harold Sargent, Jock Hutchison, Bill Gordon, Eddie Williams and Jules Platte.

Approved by PGA Instruction Committee.

Write for complete details and prices now and increase your lesson income and results with the VIDEO INSTRUCTOR modern method of golf teaching.

ENTERPRISES

LAKE FOREST, ILLINOIS



SPORTS

P.O. BOX 210

We supply special spike-resistant mats for locker rooms, golf tee mats, quick-drain mats for shower rooms, drying rooms and all wet locations, mats in color with club name for entrances, colorful rug-protecting runners for lobbies, kitchen mats, bar mats, in fact specialized mats for every club need.



MORE COVERAGE PER DOLLAR

With NELSON SILVER TOP VALVES and RAIN BIRD No. 80 Special SPRINKLERS

These quick coupling Silver Top valves speed work and save labor. Available in capacities up to 125 gallons per minute. Rain Birds are simple, rugged and trouble-free. Full or part circles. Available in capacities up to 125 gallons per minute.

For Information Contact

East of Denver

L. R. NELSON MFG. CO., INC., PEORIA, ILL. Denver West

RAIN BIRD SPRINKLER MFG. CORP., GLENDORA, CALIF.

CONTROL OF STINKWORM

(Continued from page 40)

nical toxicant per acre. The turf was then soaked with water. During the succeeding two weeks 50 to 60 per cent of the earthworm population was destroyed.

On May 25 a second treatment of 5 pounds of 25 per cent wettable powder was applied to the green in 16 gallons of water providing 10.75 pounds of technical Parathion per acre. Counts of castings on June 1 showed that 70 per cent of the original population had disappeared. During the second week of June, however, a slight increase in casting population developed, due perhaps to reproduction of the species in May.

The green was again treated on June 8 with 14 pounds of 25 per cent wettable powder in 16 gallons of water providing 30.1 pounds of technical chemical per acre. Two days later the grass was visibly scorched. The injury was superficial, however, and recovery was obtained in 10 days. Accrued reduction in stinkworm population appeared to be 75 to 80 per cent by June 20. A fourth and final treatment was applied to the green on June 24 using 15 pounds of 25 per cent wettable powder in 40 gallons of water providing 32.25 pounds of technical Parathion per acre. Despite heavy watering, severe burning occurred from which most of the grass did not recover for a month. Sixty-one sq. ft. of turf required replacement. Casting counts prior to the last treatment appear in Table 2 on next page.

Compared with the initial population of May 13 counts made June 29 showed 97.1 per cent reduction to have been obtained.

Following the collection of 1000 worms from the surface of the green in early October nothing further was seen of the earthworm population until May 5, 1949, when 15 castings and 4 worms were counted. On May 23, 6 worms surfaced but no castings appeared. Notwithstanding the occurrence periodically of optimum weather conditions for maximum surfacing and casting during the remainder of 1949, no further stinkworm activity took place on the putting green at Woodway.

Turf samples were assayed for Parathion. The results are tabulated in Table 4 on page 84.





Heavily Infested Areas of Green No. Castings per 100 sq. ft.	Lightly Infested Areas of Green No. Castings per 100 sq. ft.
$100 \\ 200 \\ 147 \\ 95 \\ 112$	57 30 53 42 29
130.8 Av.	42.2 Av.

On June 29 casting counts were again taken in the above areas (Table 3).

TABLE 8 COUNTS MADE HINE 29

No.	Heavily Infested Areas of Green Castings per 100 sq. ft.	Lightly Infested Areas of Green No. Castings per 100 sq. ft.	
99 100 53 86 103		38 21 42 33 32	
	88.2 Av.	29.2 Av.	
	verage per 100 sq. ft. of gree		

TITTUIN .WATS Constructed of Tire Casings	ONLY 90c
FILLING	R SQ. FT.
• THE BEST MAT FOR DRIVING TEES! Designed to specifications of well-known pros, these mats are functionally ideal, reversible and virtually everlasting. The finest tee mat at the lowest cost to you.	PREPAID
BEST IN LOCKER ROOM, ENTRANCE & SHOWER Perma-Mats pay for themselves by saving floors, spikes and pre- venting accidents. Lays flat (no kinks), thicker cushion, closely woven for firmer footing.	
Immediate delivery on popular sizes, send specifications.	MO.

You'll improve your course with **SKINNER** irrigation

Individual units or complete "tee to green" systems. Precision made of brass, bronze and stainless steel parts to assure dependable performance for years. Write today for specifications. THE SKINNER IRRIGATION CO., 415 Canal St., TROY, OHIO

"Pioneer and Leader in Irrigation for Nearly Half a Century"

TABLE 4. TURF SAMPLES ASSAYED FOR PARATHION

Composite Samples Taken	Ppm. Parathion in top inch of soil
July 14, 1948	30.0
Sept. 30, 1948	15.0
Dec. 8, 1948	4.9
Mar. 24, 1948	3.4
Sept. 12, 1949	3.1

ALDRIN (Compound 118): Twenty-five pounds of Aldrin, 2.5 per cent dust, was applied to a small area in August, 1948, at the rate of 5.0 pounds of technical toxicant per acre. A follow-up treatment of 11 pounds of actual toxicant per acre was made in early October. No injury to the grass resulted from the use of the compound; it did, however, stimulate the earthworms to abnormal casting activity at that time. In mid-April, 1949, subsequent to heavy rain, no castings or worms appeared on the green. At the same time untreated greens were covered with castings. Several weeks later (May 3) 5,000 worms were collected from the treated green. On May 9 a third Aldrin treatment was made, using 3 pounds of 25 per cent wettable powder per 1,000 sq. ft. so as to provide 32 pounds of technical toxicant per acre. From then on the population declined gradually. Occasionally during autumn when favorable weather conditions prevailed, a few castings and

worms appeared on the green. CHLORDANE: Chlordane 5 per cent dust at the rate of 20 pounds per 1,000 sq. ft. and 2 pounds of 50 per cent wet-table powder per 1,000 sq. ft. were applied to infested greens in June and July, 1948. In both instances the rate was 44 pounds of technical chemical per acre. The dust treatments showed virtually no reduction in infestation during the remainder of the season.

Throughout the summer very little difference in casting populations could be seen where the wettable powder was used. However, by late autumn it appeared that the number of worms in the treated greens was comparatively low in contrast to check greens which were unplayable during periods of weather favorable for casting. On May 3, 1949, 1,500 worms were collected from 10,000 sq. ft.



of turf treated with 50 per cent wettable Chlordane in 1948. On this date the areas were retreated at the rate of 44 pounds of technical Chlordane per acre. It was observed that most of the worms that surfaced during the summer and fall did not return to the soil but died on the surface of the greens. Consequently there were only a few castings and worms on the greens in late autumn at times when untreated turf was literally covered.

EMULSIONS: During the spring, summer and autumn of 1949, Chlordane, Al-drin 118 and Dieldrin 497 emulsions were applied to Oriental earthworm infestations so as to provide 40 pounds of technical Chlordane and 30 pounds of technical Aldrin and Dieldrin per acre. The emulsions were diluted in 50 gallons of water applied per 5,000 sq. ft. The areas were soaked with fresh water immediately following treatment and in most instances once a day for two subsequent days. Despite strong sunlight, high temperature and humidity, especially when the summer treatments were made, injury to grass occurred on only one occasion in mid-July. Proper handling of the green, however, brought the turf back to normal in 10 days.

Destruction of stinkworm populations by emulsions was (in contrast to the use of dusts and wettable powders at much higher dosage levels) remarkably fast. Worms surfacing during rainy weather died on the turf by the thousands. It was estimated on July 10 that there were 20,000 to 35,000 dead and dying worms per green (av. 5,000 sq. ft.) where the emulsions had been used but none on the check greens.

On October 31, following heavy rain and high temperature on the previous day,



"HENRY" BALL WASHERS

An 11 year record of carefree service proves the popularity of its practical design and the lasting qualities of its sturdy construction

HEAVY GAUGE, UNBREAKABLE PRESSED STEEL, RUST PROOFED

SLOP-PROOF: saves players' clothes and tempers ... SAVES TIME: it's quicker, more thorough and easier ... SAVES COVER PAINT: it has no scouring bristle brushes ... SAVES REPLACEMENTS: its cleaning units do not rot or warp and its cleaning chamber is rust-proofed pressed steel.

Quick - Trim - Tidy - Easily drained and refilled.

Allen Set Screws make them theft proof.

A. C. SCHENDEL, Distributor HENRY GOLF BALL WASHER WAUKESHA 5, WISCONSIN BALL WASHER \$12.75 Tee Data Plate \$ 1.25 Waste Cont'nr \$ 2.35

Send score card when ordering Tee Data Plates.

PRICES F. O. B. Waukesha 5, Wis.





worms and castings appeared on all untreated greens. None, however, were seen on greens saturated with emulsions.

Many additional experiments were carried on at Pelham during 1949. One material showing promise was Lindane applied at the rate of 10 and 20 pounds of the pure gamma isomer per acre. The chemical was used separately and in conjunction with emulsions. Barely noticeable scorching of the grass occurred when the toxicant was used alone. In combination with other materials injury was much more severe. Stinkworm populations declined rather rapidly in the presence of Lindane. The chemical is being used in more extensive experiments, the results of which will be reported at a later date.

Gearphos has been applied to infested turf at the rate of 8.5 pounds of technical chemical per acre. Results of the use of this material will not be available until 1950.

Conclusions

It appears from the results of excavations made at Stamford, Conn. and Pelham, N.Y., that the Oriental earthworm may occur in several types of soils. Furthermore, moisture is a limiting factor in the distribution of this worm in soil horizons. The animal is nearer to the surface of the ground and more abundant where adequate moisture occurs at all levels. As moisture content drops, the worms receue deeper into the earth.

Organic matter may determine density of population. When this requirement is artificially accentuated as it is in heavily fertilized and frequently top-dressed greens, the worm population increases rapidly and may hold a high population level indefinitely.

Weather permitting, the earthworm appears to be active during all seasons of the year. By virtue of the frequent casting habit of the worm during daylight hours as well as at night it is admittedly difficult to maintain a playable green within the limits of economical operating costs unless it is treated.

Trials made with a number of chemicals in control experiments have demonstrated Parathion, Chlordane and Aldrin as worthy of use in general practice for suppression of the stinkworm. Initial tests with the first material were at excessively high dosage levels. Later experiments provided some evidence that much lower levels of this toxicant will achieve comparable control.

Chlordane used as blended dusts or wettable powders gave less satisfactory re-





sults than emulsifiable concentrates at comparable dosage levels. Where the toxicant was applied to an infestation in emulsion form control was accelerated. Moreover, less actual chemical per 1000 sq. ft. may be used when emulsions are employed. Wettable powders are superior to dust for the purpose. Aldrin and Dieldrin emulsions show con-

Aldrin and Dieldrin emulsions show considerable promise. Both compositions may be used at lower dosage levels than either Parathion or Chlordane. As in the case of these latter items Aldrin and Dieldrin emulsions appear to be superior to dusts and suspensions in developing more rapid and complete stinkworm mortality.

Lindane in small plot experiments appeared to be excellent for control of worms. However, the tests must run longer to be certain of complete and lasting lethal effects on the populations. Additional large scale tests will be undertaken in support of the initial trials.

PLANNING CC POOL

(Continued from page 46)

near normal circumstances, with utilities reasonably close by, a 30x75 spoon bottom pool, with high and low diving boards, lights above and underwater, a well appointed bath house for men and women with toilets and showers, snack bar, provision for attendant with baskets, and the water treatment, filtration, sterilization, coagulent, vacuum cleaning, etc., all designed in accordance with the State Board of Health of Illinois requirements, built in the vicinity of Chicago, the cost should not exceed \$75,000.00, barring completely unexpected and unforeseen contingencies.

If the pool is located close to the club house so that the need for a separate bath house is eliminated and bathers can be served from the club kitchen a very substantial saving will be effected, and under normal conditions, the construction cost could be held down to between \$50,000.00 and \$60,000.00.

For clubs serving smaller cities or having a regular membership of around 200, a 20 or 25x60 foot pool with a low board only, seems to be entirely adequate and needless to say, the smaller pool results in a material saving both in construction and maintenance costs.

Separate paddling pools or spray pools for the very young are popular, and are recommended as a means of keeping the youngsters occupied and happy while the older boys and girls and the adults golf or bathe in the main pool.

A reasonable estimate for annual operating costs for a 30x75 pool, including a





coach, two assistants and attendants should not exceed \$4,500.00. Some club pools have been self sustaining, but this is very rare. The annual deficit for said operation usually runs between \$2,000 and \$2,500. The popularity of a club pool is almost assured with a little effort on the part of the management to create interest, such as holding special classes for the youngsters, water carnivals, races, meets, etc. A swimming league has been formed in Chicago for clubs having pools lying in the western suburbs and they have scheduled meets all through the summer months which have proven extremely popular. The swimming carnival in some clubs is just as big a day as the annual invitation golf tournament.

Financing such a project can be worked out in several different ways, depending largely on the existing conditions. Some of the more common methods used are a mortgage, a private loan (usually members) or debentures sold to members, on a 10 year basis. The indebtedness is sometimes retired from operating income or by an increase of monthly dues. With an expenditure of \$75,000, where the regular membership is 245, about \$40.00 per member per year covers both interest and prepayment of principal. One of the practical methods of financing such a deal that we have encountered, was done by issuing Pool Debentures on the following basis:

1. Bond issue to total the cost of the improvement and dated for a 10 year period, bearing a stated interest after a stated date, approximately one year after completion of project.

2. As of that date, and each year thereafter, the net operating surplus of the club for the previous year's operation to be used to retire debentures, and an annual minimum is set up for that purpose, it being definitely stated that in determining the net surplus, capital expenditures in any year shall not exceed a stated amount.

3. Any and all outstanding debentures can be retired at any time, upon request.

4. If there is no existing mortgage, debentures are unsecured, but no prior lien can be placed on the assets of the club unless debentures are ratably secured, or unless approved by the holders of % of the outstanding debentures.

5. In the event of default, and upon demand of the holders of at least 25% of said debentures, all outstanding debentures shall become due and payable and collection on same shall be enforceable.

FOR ANY KIND OF CLUB FINANCING, AVOID PAYMENT OF INTEREST. AT THE SAME TIME, IMPROVE THE RELATION-SHIP BETWEEN CLUB AND MEMBERSHIP.

LEE CLARK VINSON Institutional Financing 2952 West 14th Street CLEVELAND 13, OHIO MINIATURE GOLF One of the best profit making golf games today ... Some courses established over 3 years are still making \$1,000.00 a week profit. ARLAND Designer & Builder of America's Most Beautiful Miniature Courses

NEWS from the MANUFACTURERS

MANUFACTURERS ELECT OFFICERS

At the spring meeting of the Golf Ball Manufacturers Assn. and the National Assn. of Golf Club Manufacturers held April 27 in New York the following were elected for one year: For the Golf Club Manufacturers, Carl

For the Golf Club Manufacturers, Carl Benkert, Hillerich & Bradsby, pres.; William King, Wilson Sporting Goods Co., vice pres.; and Fred Bowman, also of Wilson, sec'y-treas.

Camille Gairoard, Kroydon Co., president of the club manufacturers since 1934 was host to members of the assn. at dinner where he was presented a watch in honor of his service.

Lu Coleman, A. G. Spalding & Bros., continues as pres. of the golf club manufacturers with John Sproul, U. S. Rubber, vice pres., and Vincent Richards, Dunlop Tire and Rubber Corp., sec'y-treas. Richards replaced James Brydon, Worthington Ball Co., who had served since 1940.

PAR-PAL POCKET GADGET FOR GOLFERS

A handy pocket-size gadget for golfers that does 12 jobs has been developed by ParPal Co., 524 Main St., Toledo 5, O.

The ParPal not only has a device for fixing ball pits on the greens but also has a stymie marker, a yardage scale for iron shots, a shoe spike wrench, club furrow cleaner, club grip roughener, pencil sharpener, bottle opener, screw driver, locker key chain, tee sharpener, finger nail cleaner and can be used to clean mud from shoes.

The device comes individually boxed and is being offered for sale through pro shops.

Good Golf Sales, P.O. Box 5423, Chicago 80, Ill., Frank Pritchard's Head-On set which uses various wood and iron heads on a single shaft, is getting warm publicity from war vet amputees who are using the set. Pritchard also is receiving enthusiastic testimonials from travelers who have taken the Head-On set overseas and have been able to play foreign courses with their own clubs without transporting conventional type of equipment.

Slip Seal Co., Long Beach 13, Calif., has a new Slip-Seal one-ounce jigger that fits into bottles and makes liquor service quick and wasteless. It probably will become standard equipment at golf club bars. It is made of plastic and in 4 colors.



PRO FINISHED

June, 1950



HAND BEADED SPORT BELTS



Al Robbins, Janalan Craftsman manager, reports these colorful beaded belts are a popular pro shop item. Men, women and youngsters find them attractive and they come in sizes to fit every member of the family. Belts are one inch wide, made of genuine steer hide in natural or white with fadeless bead work in all colors of the rainbow. Prices in quantity lots available from Janalan Craftsman, 7618 Eastlake St., Chicago 26, III.

Vogt Health Appliance Co., 1100 Ashley Drive, Kalamazoo, Mich., has a Polorator which gives heat and massage through two metal vibrators which grow warm in operation. The device has a big field of use in well-equipped golf club bath depts.

HELEN HICKS JOINS BURKE GOLF



Helen Hicks, winner of the 1931 Women's National championship and 31 other titles, has joined Burke Golf, Inc., Newark, Ohio, Helen will make an extensive tour putting on clinics and demonstrations at clubs and schools. She already has presented a number of clinics in the N.Y. Metropolitan district, following a busy winter and spring teaching in

Jack Redmond's golf school at New York. Her title with Burke will be "Women's Golf Counselor."

Burke scored exceptionally well with its Lady Burke golf ball, recently introduced. Stocks of the new ball, made especially for women's play, were exhausted quickly after first shipments were made to pros and production has been stepped up. Lady Burke clubs also are having big sale.