DOLLAR SPOT CONTROL Number of Spots Per Ten Square Feet; Season Average 1947

Material and Dosage per 1000 sq. feet	Philadelphia Country Club 10 weeks average	Pennsylvania State College 7 weeks average	Merion Golf Club 8 weeks average
Check treatm Tetramethyl thiuram disulfide 5 o 2-1 calomel bichloride of mercury	nent) 172	67	9.2 3.9
mixture 3 o "Crag" 531 3 o		30 9 3	0.75 0.08 0.12
PMAS 20 *Approximately equivalent cadmium con	c.e. 27	-	5.3

new fungicides of particular interest for the control of dollar-spot. The new materials contain cadmium as the active fungicidal ingredient. One is an inorganic complex containing several other metals in addition to cadmium and is known as Crag Turf Fungicide 531. The other is an inorganic complex containing phenyl amino cadmium dilactate and is known as Puraturf 177.

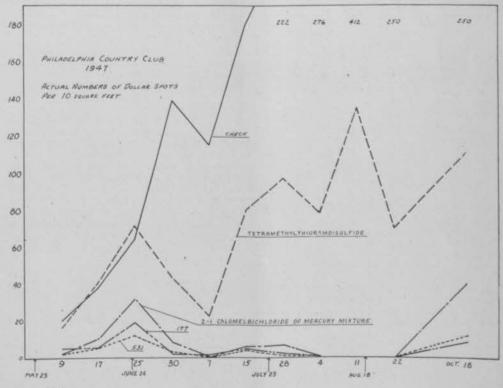
Some of the 1947 tests in Pennsylvania are shown in the accompanying table, where these cadmium fungicides are compared with both mercury and Tersan.

The table illustrates different levels of

disease in the three localities, but in all three places the new cadmium fungicides gave control of dollar-spot equal to or better than previously developed fungicides. Since the figures are averages, the seasonal incidence of the disease and progress from week to week are better shown in the accompanying chart.

Both the table and the chart illustrate the effectiveness of the control obtained, but neither one tells the complete story. The injury factor cannot be brought out in figure or diagram, but it is reported from both Pennsylvania and Rhode Island

(Continued on page 92)



Installing Sod Nursery for Bent Grasses

By FRANKLIN HAMMOND

The aim at the golf sod nursery is to grow a thin layer of turf, strongly knit together, filled with a maximum of vigorous roots and short branching over ground stems, a minimum of soil and a texture to match the soil in the area to be repaired or replaced. We must be able to cut this sod to exact length, width and thickness. It must be able to stand lifting, transportation, and laying with no change in size or shape, and without breakage. It will stand moving without the least check in growth when properly handled.

The seed bed must have good drainage and a uniform open texture. Sand meets these two conditions. The sod should be cut at about one and a quarter inches thick. For uniform easy cutting the knife of the cutter should operate in the sand base.

Regardless of the depth of rich soil in the seed bed the new turf will not remain in the nursery to take advantage of this depth of soil. Covering the sand with enough loam to hold moisture for seed germination is enough to start turf growth. Seed or stolons will develop roots in a thin layer of soil as well as in a thick one provided the correct amount of moisture and food is supplied at the right time. For this reason a layer of loam one quarter to one-half an inch thick when compacted is all that is needed.

Root growth will develop where water and nutrients are easily available. The moisture and food can be supplied in the sand base below the layer of loam if the soil is of open texture. Velvet bent has a very dense fine root system. With an open soil and enough food and water the root system will develop more rapidly than in a compact soil.

The site must have suitable subdrainage so water will be drained away. A layer of sand which will be at least six inches thick after it is packed is placed on the sub grade. The sand should be rolled wet and packed until the surface is firm. Then scrape the top with a wooden pusher about four feet wide to remove the high spots and fill small depressions. After that wet and roll as many times as necessary to make a solid bed. Careful leveling and compaction will reduce the cost of all future operations.

A layer of good topsoil one-half to one

inch thick should be placed on the top of the sand base. When applying this loam it is important not to disturb the sand surface. Workmen should be instructed about walking on this surface and how to use their tools. When seed is to be used the loam must be rolled and leveled with the pusher until a smooth, level, well packed surface is produced. Sometimes a light wetting of the loam will facilitate packing, but the surface must not become so wet that the loam will stick to the roller. The final operation before seeding is to "float" the surface with the pusher to acquire a slight amount of loose loam on top to hold the seed.

Velvet bent seed in "chopped hay" form can be spread in one direction only if the operator is careful. There will be sufficient bulk to show very clearly the amount of surface covered. A 100 pound fertilizer bag containing about 18 pounds of chopped hay will seed 2,000 square feet of nursery. After seeding roll with a light roller to press the seed into the soil but do not scratch or brush the surface.

I have used this method of seeding a number of times and the results have been satisfactory. A good water system is necessary. The nursery must be under constant observation at all times until turf is well established.

Velvet bent after it is once established can stand considerable dry weather and should be maintained on the "dry side." One learns rapidly just when the point is reached to apply water. Frequent light waterings are more desirable than heavy less frequent applications. This is not in line with accepted practice, but it works.

The turf in this type of soil grows on a minimum of loam. This type of seed bed is satisfactory for sod, seed and stolon nurseries. There is practically no water table in the soil to supply moisture from below, nor is there a deep soil supply of food to keep the plants growing. Food and water must be supplied when needed and then only in the exact amount required.

Fertilizing the Nursery

About the first of October 100 pounds of a complete fertilizer of 8% nitrogen, 6% phosphoric acid and 2% potash should

(Continued on page 89)

The New World's Putting Sensation



CURVED FACE

The secret of distance and direction control lies in the correctly curved face of the Rite-Arc Putter and the perfectly machined straightness of its lateral lines.



Rite-Arc DROP IN PUTTER PRECISION-MACHINED GIVES BALL NATURAL OVERSPIN

... starts the ball right for the cup with natural overspin because of the patented Rite-Arc principle.

A Feeling of Confidence in Every Putt!

Professionals

This putter was developed by golf's severest critics and mechanical engineers. It's the key to perfect putting because of Rite-Arc principle of design ... and its balancing for perfect feel and touch. A must for better putting.

Especially designed for eye-ease line control ... the secret of dropping the ball into the cup through

the putter's seeing line-up.

Professionals

Rite-Arcs will be the pace-setters for 1948 putter sales.

The Rite-Arc has the "see why" and the "feel why" that gets quick attention and buying action.

Your players can see why it starts the ball rolling with an overspin directly along the line-of-putt from the moment of impact ... smoothly, without deflection from skid or hop.

In its perfect balance your players will quickly sense the feel of a putting touch that fires confi-

dence.

As an experienced judge of clubs, you'll appreciate the precision machining of the Rite-Arc — the absolute straightness of its horizontal lines, from heel to toe, the uniformity of its arced surface and the evenly scored face of its hard Armco metal head.

Write today for particulars and Professional's price.

In Natural Armco Metal.

GENERAL MACHINE CO.

1825 West St. Paul Avenue West 4250 MILWAUKEE, WIS.

Advertising Is Important Part of Pro Job

Jack Gordon, lively veteran pro at Westwood CC (Buffalo dist.) is a consistent advertiser to his members. Jack says, "With my Scotch background I have a lot of appreciation for thrift. But thrift doesn't mean not spending money when a little money spent will bring big returns. A steady advertising campaign by the pro is genuine thrift. He not only gets sales he otherwise wouldn't make but he keeps his members constantly reminded that he's got everything they need to give them full enjoyment of the game and full value from their club membership."

Gordon is a believer in mailing card advertising to his members. He has proof that it's much better to send the cards out separately rather than having pro advertising enclosed with members' bills. When a member gets his club bill he may feel like cutting down his expenses at the club. That reduction may come in reducing purchases at the pro shop rather than at the bar.

Jack protects himself against running second to thirst by keeping a campaign going on blue mailing cards of postcard size. The cards have the shop telephone number printed on them to facilitate action in ordering equipment or getting lesson time.

Mailing is Timed Right

The cards are sent out Thursday so members will get them Friday and be reminded to do some shopping at the pro shop for their week-end golf supplies. These mailings with the subtle invitation to call up the shop also help Jack get a line on what a member may want but which isn't in shop stock. With that information Jack can do some rush shopping himself and be able to supply practically every need.

Gordon is a hard worker, and smart, in establishing himself as a golf authority. His book "Understandable Golf" has been a good seller for some years and was reprinted in a smaller edition which has had wide distribution. He also has written golf articles for the Buffalo Evening News for a couple of years.

But it's the card advertising that converts reputation into shop sales. This advertising campaign Gordon regards as an essential of his operations and not merely as something to be done when he has a bit of spare time and is in the mood.

Copy Specimens

Examples of copy that Jack uses on his cards:

"Dear Member:

"The Wild Geese are flying north over WESTWOOD to their summer habitat and we in the Pro Shop are preparing for another glorious season of GOLF and fun for you.

"Won't you please bring your Bag of Clubs in and put them on the cleaning list where they will be kept in good shape all season for the nominal fee of \$7.00.

"Too, plan on taking lessons early and enjoy your game more. You know what Uncle Remus says, 'Zip-a-dee-doo-dah! Zip-a-dee-ay! My, Oh! my what a wonderful day. Plenty of sunshine headin my way. Zip-a-dee-doo-dah, Zip-a-dee-ay.' Your Pro Shop is prepared to serve you well."

"Dear Member:

"Using a real good set of Golf Clubs properly fitted to your particular swing is absolutely essential to the playing of good golf. You thus eliminate the uncertainty of making bad shots through poorly fitted Clubs, and your confidence is strengthened.

"In the Pro Shop we have Bobby Jones, Tommy Armour, Spalding, Wilson, and MacGregor Clubs to select from.

"Let us get the proper fitting of your set. And, our prices are reasonable." Dear Member:

"The thrill you get out of Golf, apart from the fine exercise, pure air, sunshine, etc., is when you are hitting your ball on the sweet spot. You want to hit more there, don't you. Well, take a few lessons early before you will have formed wrong habits.

"Just telephone Parkside 2831 for an appointment. ½ Hr. Lesson \$2.00. 6½ Hr. Lesson series \$10.00."

"The swallows are homeward flying and the frost is on the pumpkin and we in the Pro Shop at WESTWOOD are preparing to fold our tents like the Arab and silently steal away for the winter after another very successful GOLFING season.

"Will you kindly plan to pick up your Bag of Clubs by November 1st.

"Thank you for making our season such a happy one and looking forward to seeing you in the Spring when we will have more fun—and enjoy GOLF."

America's finest sportswear now is available for your Pro Shop merchandising "Foremost Nationally Advertised Brands"

Spur

FOUR-IN-HANDS • BOWS • BATS
SPORTSWEAR • BELTS • SUSPENDERS
GARTERS • BILLFOLDS • ARMBANDS
MUFFLERS



FINE SHIRTS OR MEN

> Retail Price

#5009. Fine White Broadcloth Shirts, made with soft built-up collars (stays). \$5.50 \text{#x141. Collar-button-down White Oxford Shirts.} \$5.00

May be ordered from stock at all times RE-ORDER PADS AVAILABLE UPON REQUEST

The Scoggins Golfer SPORTS HEADWEAR

Hats & Caps for Golf and Tennis
FEATURING
ADJUSTABLE HEAD SIZES

SCOGGINS

LUG-GOLFER SHOES

A new idea in comfort, confidence and convenience your players will enthuse over. Popular priced, in all sizes for men and women.

SOLD IN PRO SHOPS ONLY

"WELGRUME"

Finest Kid Mohair and Zephyr Wool

Sweaters and Sportswear

FOR THE GOLF PROFESSIONAL

GOLF BAGS

DOUBLE EAGLE BRAND

The Best in Golf

Manufactured exclusively for the golf professional by an experienced specialist.

TWO-TONED BEAUTY in GOLF JACKETS ... New Featherweight Reversible IN WATER REPELLENT POPLIN

Smartly styled for free-swinging comfort and all-weather protection. Two color combinations—Tan-Forest Green, Tan-Cream. Priced to retail about \$13 to \$16.

The House of Teatherweight Rainwear

GOLF BALLS

o v

OF CANADA

DESIGNED FOR DISTANCE

Sold thru Professionals only.

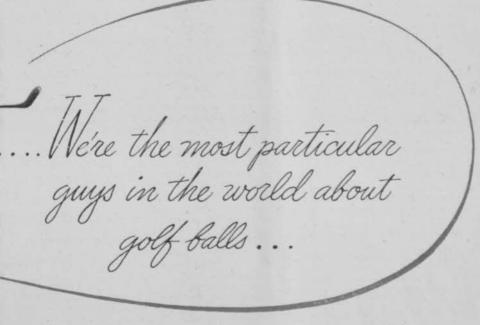
Visit our display room on the 7th fairway room P.G.A. Club at your P.G.A. Florida. in Dunedin, Florida. Howard Scoggins
GOLF COMPANY
DUNEDIN, FLA



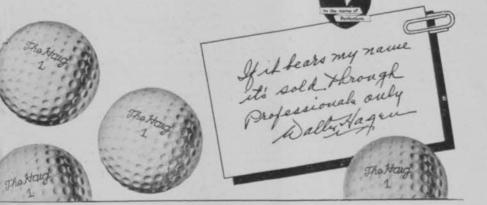
It was because of this and our keen understanding of the qualities Professionals want in the golf balls they play and sell that the new Haig Ball was developed.



WALTER HAGEN Division of Wilson Sporting Goods Co., Grand Rapids 2, Michigan



The HAIG with its revolutionary, perfectly balanced, thin-wall center in the exact center of the ball and its high compression winding is truly a Professionals' golf ball. You'll like its sharp click, jet-propelled getaway, the extra yardage it gives, its bee-line flight and true roll on the greens. Like all other custom built Hagen equipment, the HAIG, Trophy-Plus, International and Speed-Flo golf balls are sold through professionals only.



Jaycees Have Successful Record in Promotion

From the time a Junior Chamber of Commerce made a highly successful promotion of the 1934 PGA championship at Buffalo and demonstrated that the sponsors of a golf tournament could make a direct and substantial profit on a tournament other than the National Open, tournament golf began to get on a sound financial basis. Prior to that, tournament sponsors rarely came out ahead financially and contented themselves with publicity.

In the promotion of tournament golf the Jaycees in various cities took the major role and by smart organization and effort figured more than any other organization in the nation in making tournament golf big business.

The reason is simple. Golf is the favorite hobby of Junior Chamber of Commerce members who range in age from 21 to 35.

In 1946 the Jaycees directed their promotional genius and work to their first national junior amateur championship for boys under 19. Only seven states were represented in the initial event which was played at Indian Canyon GC, Spokane, Wash., and won by Al Mengert of Spokane. Last year boys from 26 states played in the Jaycee national Junior championship at Mt. Hawley CC, Peoria, III. Mengert successfully defended his title. South Carolina won the team championship.

This year more than 40 states are sending players who have passed through state qualifying rounds conducted by Jaycee state organizations. The third Jaycee national junior championship will be played at Country Club of Lincoln, Neb., Aug. 3-7. The host organization is the Lincoln Junior Chamber of Commerce. Bud Williamson is the host pro.

As usual, the entire Jaycee plan and promotion is thoroughly worked out.

The Jaycee championship, with the first USGA junior championship, the National Caddy championship, and the Hearst newspapers national junior championship make this a great year for boys' golf. The PGA junior promotion program, headed by George Lake, is tying alert pros into the big picture.

Any pro who wants to get a close-up on what an excellent and complete job the Jaycees are doing in arranging their national junior championship should write Ray Rice, Director U.S.J.C.C. Sports and Recreation Program, Room 1719, 209 S. State St., Chicago 4, Ill., for the Jaycee junior golf information and regulations material. It is free.

Supts. and Chairmen Talk Turf at Chicago

Midwest Golf Course Supts. Assn. and Chicago District Golf Assn. chairmen and presidents met at Hotel LaSalle, Chicago, May 17 to consider mutual problems of turf management.

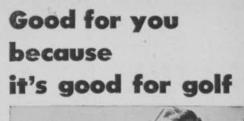
Don Strand, Midwest pres., Frank Whitson, Chicago DGA pres., Gerald Mott of Purdue and Midwest Regional Turf Foundation, and Herb Graffis, GOLFDOM editor, were scheduled speakers. Before the session concluded almost everybody present got into the act with the result that the meeting meant cash savings and improved course condition to every club represented.

Noer said that generally 1947 was the second worst season in 27 years for golf turf. Poa annua was heavy. Snow mold was bad. Snow came when grass was still green in 1946, then it was warm then severely cold in spring, 1947. Heavy rains that didn't penetrate in the spring were followed by hot wilting summer winds. About the only thing weather conditions favored were greenkeepers' ulcers.

However, greenkeepers managed to do amazingly well in handling greens. Fairway turf continues to be a major problem. Players are getting even fussier since 2, 4-D had eliminated dandelions and other broad-leaved weeds, Noer pointed out.

Mott told about the Midwest Turf Foundation work in developing new strains of golf grass, testing fungicides for toxicity to different strains of bent, nutrition problems and in developing technology so proper growing of turf grasses will be clearly understood. The Purdue authority said that the broad subject of good turf management ranked ahead of specific problems such as weed control. He asserted that in turf growing we are about at the same stage of development corn growing was 25 years ago.

Club officials and supts. discussed costs frankly and considered the difficulty of helpful comparisons between making costs on different courses. Norman Johnson, Midwest sec., asked club officials to cooperate in inviting Midwest Golf Course Supts. Assn. meetings to their clubs. Graffis commented that if club officials had opportunities to get comparable organizations of factory supts. to visit their factories and make expert and constructive suggestions without charge the officials would send out engraved invitations but this phase of the greenkeepers' organizations' work isn't properly understood so it's eagerly used by clubs. Whitson and CDGA member club officials present declared they'd push greenkeeper and club official coordination.







THIS MAKES IT BALANCE

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Golfers want comfort, convenience and quality in a golf bag. That's why so many have switched to Lightweight Balanced Golf Bag. Hundreds of thousands of golfers are getting more enjoyment from the game because they carry the lightweight bag that is full size, doesn't sag or spill clubs, and is balanced

for easy carrying . . . Balanced Golf Bag.

More popular than ever, now available with or without hood, and backed by national advertising, Balanced Golf Bag is far ahead of the field as America's fastest selling golf bag. Be sure you have stock on hand—order today from your distributor or jobber.

STANDARD MODEL

\$600

* Finest quality duck. Sun-tan or white—

trimmed in olive green.

with hood, \$700

If your distributor cannot supply you immediately, order direct. Dealers' discount 40% off retail list.



BALANCED GOLF BAG, INC., North and Noble Streets, Chicago 22, III.

Homemade Movies Help Pro in Golf Instruction

By JOHN SHOREY



John Shorey

It all started legendary centuries ago when Narcissus leaned over a pool of water and observed his reflected image for the first time. The fascination of being able to see himself as others saw him led to some serious thinking.

So it seems that the urge to see ourselves as others see us has always evidenced itself in man's makeup. This, no doubt, was a factor which led to the invention of the first box camera. Photography, as a popular hobby, dates back to the introduction of that plain box with the hole in the front that required no focusing, no shutter fidgeting, and no special skill to operate. Then at the close of the 19th century the so-called Armat machine projected the first flickers in the City of New York. Since then all the wonders of the universe have been set in motion. It has only been in the last 25 or 30 years, however, that the movie camera has developed to the extent of taking action pictures in slow motion in order that we might see what actually takes place when an object moves at a high rate of speed.

Before the advent of this specific type of movie camera, we depended entirely up-



Sam Snead pours power into a shot.

on the unsure method of visual observation. With this high speed camera many things were found that the human eye had never seen. And since the eye is selective it missed what only a camera can see.

Movies Analyze Swing

For instance, the many old ideas of hitting a golf ball have been entirely disproven. In our first generation of American golfers, such stars as Johnny McDermott, Fred McLeod, and Gil Nichols believed that the downward motion of the



Camera catches Hogan at impact.

club originated with a "throw" of the clubhead involving the initial use of the hands and wrists.

Obviously capable as they were they promulgated this doctrine, yet at the same time hit the ball with their hands in the same manner the star golfer does today. Could they have observed their wrist action in slow-motion they would have seen, when at the top of the back swing, that the left hip made the initial move—not the hands. The left arm would appear to be pulling on the hands and the club; the