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Swinging Around Golf
(Continued from page 21)

held at Taconic GC, Williamstown, Mass., June 22-28 ... This is third straight year that Williams College has been host for the affair ... Antelope Valley CC's $300,000 clubhouse opened in mid-April ... Don Erickson, formerly at Oakmont CC in Glendale, is Antelope Valley's pro.

Bill and Dave Gordon to design another 9 at Hyde Park muny in Niagara Falls, N. Y., after remodeling present 27 to provide room for industrial expansion.

If you watched "This Is Your Life" on TV on Apr. 23, you saw Jerry Volpe, owner of the Englewood (N. J.) GC ... A former pro, Jerry recalled how he had played golf 20 years ago with Mrs. Jessie Steward, the comely and courageous woman whose life was dramatized.

Southeastern office of the USGA green section is now located in Connor Hall, University of Georgia, Athens ... Mississippi State College planning to start turf research program in near future ... It will be directed by Dr. Louis N. Wise ... Fred Seibel, caddie master at Tam O' Shanter, Niles, Ill., reports that George S. May has sent 39 caddies through college in the 10 years he has been employed there.

Charles Campbell, dir. of Midland (Tex.) park dept., reports that 190 acres in Hogan Park for 18-hole muny course now being fenced in ... It will take two miles of fence material to do the job ... $250,000 in bonds have been allo-

To repair damage to a suburban Boston golf course green by an irresponsible youngster driving a truck, the following will have to be done: Sod will have to be lifted from half the green, the subsoil loosened and this portion resodded or reseeded. Truck tracks showed that the driver made at least four trips around and over the green.

cated for the park course project ... San Antonio kids can get Junior golf cards from their school principals if they have maintained a "C" average ... They play for 50 cents a round.
First International Miniature golf tournament to be held in Asbury Park, N. J., sometime after Labor Day. . . Tourney will be held on a local elimination basis

Ground was recently broken for a 9-hole addition to the Antioch (Calif.) GC. The photo was taken in the vicinity of the 11th tee. A sum of $50,000 was spent in acquiring the land for the addition and $20,000 will be spent in rough grading it. Money for getting the municipal course underway came from a sales tax revenue fund. Bob Baldock designed the Antioch addition. Oliver C. Sleppy is pro.

with winners going to Asbury Park for the finale . . . Jennie K. Wilson Amateur for women, held in Hawaii, won by Ramona McGuire who had a 54-hole 226 total . . . Two of the entrants came from Japan . . . LeeRoy Garrett and Happy Lenz open their second range and Par 3 in the outskirts of Houston.

Ed Draper, teaching pro at Desert Inn CC, has gone to Hidden Valley in Reno as head pro . . . Hinds Junior College, Raymond, Miss., has a new 9-hole course under construction . . . Mississippi Southern College in Hattiesburg plans to start construction of 18-hole course before fall . . . Every club in Mississippi belongs to the state's Golf Assn.

Ralph Plummer, Southern golf architect, says young fellows shouldn't get into course design until they get plenty of construction experience . . . New Sweetwater (Tex.) CC now in full swing following recent opening . . . Harold Smith is pro . . . Joe Rowell is the new supt. at Hobbs (N. M.) CC . . . Arnold Chambers has taken over as pro at Frontier CC, Eunice, N. M.

Sid Van Ulm, Houston Press golf writer, after 45 years covering tournaments is retiring because of heart kicking him . . . Great guy to get around and dig and write brightly . . . A swell playmate on golf course and in lockerroom . . . Trevor Wignall, sports columnist of London Express before World War II, died recently in England . . . He was well
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known to American golfers and other sportsmen of this country having made a couple dozen trips across to cover championships ... He was Britain's highest paid sports scribe and a highly entertaining and informative writer ... He is survived by his widow, Vi.

S. J. (Syd) Cooper, 85, a pro for 62 years, died April 13 in his Phoenix, Ariz., home after a two weeks' illness ... After 12 years as a pro in his native England, Cooper came to the U. S. and was at clubs in Indiana and Michigan prior to going to Texas where he was pro at Cedar Crest, Dallas, for seven years and designed 20 courses ... He came to Phoenix in 1929 as pro at the Arizona Biltmore ... He remained active in pro golf until he was 79 ... He is survived by his widow, his daughter, Mrs. E. L. Stevens, with whom he and Mrs. Cooper made their home in Phoenix, and his son Harry, noted playing pro of the '20s who now is one of the celebrated teachers and pro at Metropolis CC.

Durable, ebullient and resourceful Jack Redmond, trick shot golfer, on another globe-girdling trip ... He's on the Cunard line's Caronia going a course that has a mileage of 33,493 ... Pinehurst (N. C.) CC making $200,000 addition for men's and women's lockerrooms ... New wing of clubhouse calls for relocation of 18th green of No. 2 course ... In winning the Western Amateur at CC of Florida, James Key played 197 holes ... He was among 16 qualifiers at 72 stroke play, then beat Mason Rudolph, 3 and 2 in the final.

Ron Caperna from Astoria (Ore.) G&CC to pro job at Rogue Valley CC, Medford, Ore. ... Dave Killen from East-
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Ted Kroll on job as pro at new De Soto Lakes CC, Sarasota, Fla. . . . Ed Carter out at end of August as tournament director of Ladies PGA . . . LPGA officials haven't selected their new tournament director yet but have been talking about a deal with Fred Corcoran who did very well for girl pros when he was interested in this phase of golf promotion.

Frank Marshall returns to Evergreen GC (Chicago dist.) semi-private course as pro . . . He was there in 1951-52 . . . Harry Dickerson from Lakewood CC, St. Petersburg, Fla., now is supt. at Evergreen . . . Dave Eisenberg, New York Journal-American golf writer, puts on lively 10 minutes of golf broadcast Sunday nights at WOR, New York.

National Open prize money up to $35,000 this year; $5000 over 1957 . . . Edwin Hoyt is gen. chmn, USGA Women's amateur championship at Wee Burn CC, Darien, Conn., Aug. 18-23 . . . Wee Burn started in 1896 as a 2-hole course, was enlarged to 6 holes in 1897, increased to 9 holes in 1903 and opened its present 18-hole course to design of Devereux Emmett in 1925 . . . Building Atchinson, Kan., new 9-hole Pineview CC course.

Argument about relocating Memorial golf course, Springfield, Mass., municipal course, to make present site available for industrial development, has accounted for more newspaper space than any other golf course location debate we've known . . . Maryland National Capital Park and Planning Commission to build new clubhouse at Sigo Park course.

Niagara County (N. Y.) Parks Dept. building 9-hole course south of county's infirmary . . . Start building Meadowbrook CC 18-hole course near Richmond, Va. . . . Fred Findlay and Raymond Loving designed Meadowbrook . . . Tom Strange now pro at Elizabeth Manor G&CC, Norfolk, Va. . . . John Chromiak signed as pro by Willow Brook GC, 9-hole course near Allentown, Pa. . . . To open first 9 of new 18-hole course at Fairfield, O., in June.

(Continued on page 106)
Caudill—Pro Merchandiser
(Continued from page 46)

shot but to tell and show the pupil how to
do it."

As for selling golf goods, a subject to
which the River Forest specialist warms
up in a hurry, Denver has this to say:
"Long ago I came to the conclusion that
we are selling merchandise at such a high
price that it carries a lot of responsibility
with it. Go into an exclusive men's shop
and you'll see a continuous demonstration
of what I mean. There is no haphazard
handling of customers. Everything is care-
fully measured and selected—hats, coats,
shoes, etc.—by the fellow who is making
the sale. There's none of this tossing an
item across the counter to a customer and
saying 'Do you think a medium will do?'

Sell More Than Quality

"We're in a very exclusive business, too.
We can't justify our prices by simply say-
ing, 'We sell quality.' We've got to sell the
highest type of service along with it. That
is what I keep drilling into every new
assistant who comes into a shop where I'm
working."

As for the mechanics of pro shop op-
eration, Denver advocates making a com-
plete display change every week, the idea
being to give the merchandise the appear-
ance of just having been received from
the manufacturer. In the ordinary shop
this takes no more than four or five hours'
work. Daily records also are kept on sales
of merchandise along with all other in-
come producing items. As regards mer-
chandise reports, Caudill has got them
down to such a science that the daily rec-
ords not only show income from sales but
the cost of all items sold. The gross from
these sales plus miscellaneous income
show the exact status of cash and receiv-
able balances at the end of the day.

Sideline Items

Denver is a great believer in carrying
not only a lot of diversified merchandise
but quite a few offbeat items, such as
imported knick knacks. This is something
he learned from John Rogers who main-
tained that country club members usually
have enough money to indulge their
whims in exotic articles and that the pro
operator should have some of them around
when they are in the mood to buy these
things.

As an example of how knick knacks or
sideline items move, last summer Denver
imported several dozen high price, heavy
glass Swedish ash trays, displayed them

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larger locker rooms

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prominently with a sign showing where they had been imported from. "Every Swedish person in the club rushed in to buy an ash tray," Denver recalls, "and before long they had many other members interested. I won't say we cleaned up on the idea but the markup was comfortable.

The above is a typical example of how the onetime Pittsburgh caddie goes about bringing them into the pro shop. Selling is just as much of a game for him as the one that is played directly outside on the course. And, he contends, buying in the pro shop is as much fun for many golfers as playing. "All you have to do," Denver adds knowingly, "is sell them on the idea."

**Heart of America, Kansas Groups Hold Meeting**

Annual joint meeting of the Heart of America GSCA, and the Kansas Turf Assn., was held Apr. 15, at the Shawnee CC, Topeka, Kan., with Cecil Smith as host supt. Ray Keen gave a talk on zoysias, bents, and Bermudagrass in the turf plots at Kansas State College. H. J. "Bud" Elmer, supt., Indian Hills CC, Kansas City, and D. W. Adams, supt., Topeka CC, also spoke of changes in their courses.

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varieties showing promise as being resistant to winterkill are Sunturf, Urganda, and Tifgreen. These grasses begin growth earlier than the U-3.

**Bent Moves South**

Improved bentgrasses are being used farther and farther south for permanent turf. Bents have been used for a number of years in the Southwest. The Southeast, however, has had more problems to overcome, the solutions to which rest primarily on the individual supt. In 1951 Alex McKay planted Arlington and Old Orchard bents on the Chattanooga greens. The same year Charlie Danner in Nashville began working with bents. Both areas have been quite successful. Ellis Maples planted bent at the Pine Hollow in Winston-Salem, N. C., in 1954. Last year greens at the Cherokee CC in Atlanta were planted to bent. There is also strong indication of more extensive use of tall fescue in low maintenance areas in the upper South.

Many of the new varieties are special purpose grasses. Improved bents are primarily used on greens and aprons. Merion has been used largely on tees and lawns.

Fescues have long been the workhorses. Tall fescues such as Alta and Kentucky 31 are widely used for low maintenance areas such as steep banks, deep shade and rough areas. The new fine-leaf fescues are basically used for lawn or fairway turf where irrigation is not used.

**Has Great Variability**

Probably Bermuda is used for more turf purposes than any other grass genus. In the South, common Bermuda is successfully used for athletic fields, golf greens, tees and fairways, home lawns and other unshaded areas. Its extreme variability and relative ease of hybridization have made fine-leaf types commonplace. Examples of this are Tifgreen, Everglades I, Bayshore, Tiffine, Texturf IF and Sunturf, which are primarily used for putting greens.

Tiflawn Bermuda, originally designed for lawns and golf courses, has been used principally for tees and athletic fields, due to its toughness. Texturf 10 is also used for these purposes. Ormond makes very good fairway and lawn turf but is coarser than desired for greens. U-3 has found wide use on tees and fairways due to winterhardiness and wear resistance.

**Zoysias Have Slow Growth**

The Zoysias have not been as useful for golf as was originally thought, due to slow growth. Meyer and Emerald are improved varieties from breeding programs.

In the South they do well in moderate shade and may be used in areas in which Bermudas do not grow. Slowness of growth, however, means that damage from golf clubs will be long in healing, so their use in areas subject to such damage is questionable.

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son, have been found to be unsatisfactory in many instances. Certainly no amount of testing at an experiment station can approximate the trial on a course. Traffic, weather, soil, and management conditions cannot be standardized on a course. The final judgment of a grass, then, is up to the men who use it—supts. and golfers.

Consider, then, the prime topic of course maintenance cost. In the Southeast quite a bit of interest is being shown in improved Bermudas for fairway use. What will this practice do to operating costs? They'll probably increase. Mowing equipment must be kept sharper and better adjusted than for common Bermuda. Damage from insects or diseases will be more easily seen due to greater sod density. A closer cut will be asked; therefore more water may be needed. The needs of fertilizer should not change, but fertilizer "burns" will be more noticeable. More frequent mowing probably will be needed. It will be more difficult to obtain a stand of ryegrass in the fall. Be that as it may, if proper grass is chosen a beautiful surface will be obtained. This means that a more careful program is required to give the golfers the things they want without great budget increases. The new grasses are better known than those which went before but will require a new management program.

Putting green management costs should be less with improved grasses than with the older types. Arlington, Congressional and Penncross...
are probably the most popular bentgrasses at this time. Their management costs have not been greater than that of their predecessors. The previously mentioned putting green Bermudas should not increase management costs, either.

Ureaform Fertilization on Putting Green Turf
By J. A. DEFRANCE
Agronomist, Rhode Island Agricultural Experiment Station

The advent of ureaform has opened the door to a whole new era in turfgrass fertilization. Because of the critical importance of nitrogen in the development and maintenance of turf areas, research work has been initiated with respect to the relatively new methylene urea compounds commonly referred to as ureaforms. Fuller and Clark, Yee and Love, and McCool did much of the pioneering work on the breakdown and availability of the ureaform materials. In general, their early studies showed that ureaform materials, if properly formulated, were effective slow-releasing nitrogen sources.

It remained to be determined just how effective ureaform fertilizers would be as a source of nitrogen for putting-green turf where grass clippings are removed. An experiment was started in 1956 to evaluate the effectiveness of ureaform fertilizers as nitrogen sources on putting green turf. This paper summarizes the results of this study as observed throughout the 1957 growing season.

Methods and Materials
The investigation was conducted at the turf plots of the R. I. Agricultural experiment station on a soil classified as Bridgehampton silt loam of pH 6.2. Experimental plots were each 50 sq. ft. in area and were replicated three times. Plots were located on three separate areas, each a different species of green turf, namely Piper velvet bent, R. I. Colonial and Seaside. All were mowed at one-quarter in. and maintained to simulate putting green conditions as nearly as possible.

Three commercially available ureaform fertilizers, Borden's "38", Nitroform, and Uramite, each containing 38 per cent nitrogen, were applied at the rates of 2, 4, 6, and 8 lbs. of nitrogen per 1,000 sq. ft. in a single application. In addition, these same fertilizers were applied at the rates of 4, 8 and 12 lbs. as split applications. Since no appreciable variation in response was observed from the three ureaform materials used at the same rate, the turf scores of all three materials were averaged and are reported as ureaform here.

For comparison the fertilizer used for general turfgrass purposes and designated as standard R. I. 8-6-2 turf fertilizer was used in this experiment. This fertilizer, which was based on previous experimentation, derives 30 per cent of its total nitrogen from natural organic
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sources; the remaining 70 per cent is from quickly available nitrogen sources. In addition, an activated sludge, Milorganite, with analysis of 5.5-4.0-0 was applied in split applications at the rates of 4 and 8 lbs of nitrogen per 1000 sq. ft. Phosphorus and potash for all the fertilizer plots were adjusted to 3 and 1 lbs, respectively, per 1000 sq. ft. including the check plots which received no nitrogen. All materials were applied uniformly with a mechanical spreader.

**Scoring Explained**

Supplemental irrigation water was applied when needed, or about every 4 to 5 days. Turf quality ratings based upon density, color, uniformity, vigor, and general appearance were taken every two weeks throughout the growing season and are designated as turf score.

The R. I. turf scoring system is scaled from 0 to 100. A breakdown of this system is as follows: 0 to 49 is poor quality, 50-59 fair, 60-69 fairly good, 70-79 good, and 80 or above excellent.

The first fertilizer treatment was applied May 3, following the recording of the first turf scores for the 1957 season. The second application was on Aug. 2. During 1956, single and split applications were applied to the same plots, Apr. 27 and June 20.

**Results and Discussion**

When applied at the rate of 12 lbs. of nitrogen per 1,000 sq. ft. as a split application there was no apparent difference between the three ureaform materials as measured by the resulting turf quality. There was a large difference between the treated plots and the check during the first week. This was especially true when ureaform was used at higher rates. This difference in turf quality, recorded the day before the fertilizer treatments were applied, is due apparently to a considerable holdover in residual nitrogen from ureaform applied the previous year. An average of all turf quality ratings shows all three ureaform fertilizers produced excellent quality turf throughout the entire growing season at the 12-lb. split application rate.

As for results of using a split application of 8 lbs. of nitrogen per 1,000 sq. ft. from ureaform materials, R. I. 8-6-2 turfgrass fertilizer, and activated sludge (Milorganite), the standard 8-6-2 turf fertilizer, containing largely watersoluble nitrogen, gave a quick growth response and produced a fairly good turf in a short period of time. However, turf quality steadily declined until the second application in early Aug. Following the second application the same general response was noted as was observed after the first application. Milorganite required a month's time to produce a fairly good turf which then declined until second application. After the second treatment, Milorganite produced an excellent quality turf during the months of Aug. and Sept., and declined in Oct. to fairly good turf.

Ureaform as a split application of 8 lbs of nitrogen per 1,000 sq. ft. produced fairly good turf during May, June and July. Following the second application on Aug. 2, the turf quality improved to excellent during the months of Aug. and Sept.