WITH MT GOLF BALLS

Roberto DeVicenzo
Argentine bomber—hits one of longest balls in game.

Mike Souchak
Broke all-time PGA record for 72 holes—257, 27 under par!

Jack Burke
Ryder Cup star. A consistent winner and long hitter year after year.

New pro-sold MT's are now available in two compression grades: Standard — and for Women's play. Packaged in new weather-tite, reusable, zip-open tubes.

MacGregor
THE GREATEST NAME IN GOLF

CINCINNATI 32, OHIO

July, 1955
MONTHLY REVENUE FIGURES FOR SOUTH GATE, CALIF. SHORT COURSE

<table>
<thead>
<tr>
<th>Month</th>
<th>Rounds</th>
<th>Green Fee Revenue</th>
<th>Concession</th>
<th>Total</th>
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<tbody>
<tr>
<td>July 1954</td>
<td>4480</td>
<td>$2240</td>
<td>$387.93</td>
<td>$2627.93</td>
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<tr>
<td>August</td>
<td>4526</td>
<td>$2263</td>
<td>$418.00</td>
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<td>September</td>
<td>3654</td>
<td>$1827</td>
<td>$291.24</td>
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<tr>
<td>October</td>
<td>2323</td>
<td>$1412</td>
<td>$229.30</td>
<td>$1641.80</td>
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<tr>
<td>November</td>
<td>2478</td>
<td>$1239</td>
<td>$206.83</td>
<td>$1445.83</td>
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<tr>
<td>December</td>
<td>2478</td>
<td>$1239</td>
<td>$315.40</td>
<td>$1554.40</td>
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<tr>
<td>Jan. 1955</td>
<td>2376</td>
<td>$1438</td>
<td>$94.05</td>
<td>$1532.05</td>
</tr>
<tr>
<td>February</td>
<td>3083</td>
<td>$1542</td>
<td>$201.70</td>
<td>$1743.70</td>
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<tr>
<td>March</td>
<td>3663</td>
<td>$1832</td>
<td>$270.35</td>
<td>$2102.35</td>
</tr>
<tr>
<td>April</td>
<td>3652</td>
<td>$1821</td>
<td>$359.55</td>
<td>$2180.55</td>
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</tbody>
</table>

This represents 10 months operation. Course opened June 20, 1954 and in first 10 days operation played 1554 players. No financial figure included since it was in previous year.

Concession represents ball and club rental, plus small percentage of soft drink sales, operated by concessionaire.

Inventory of 60 golf clubs carried. Rented at 15c per club. Ball rented for 50c with 45c returnable upon return of ball, or sold for 50c. Inventory of around 12 dozen balls carried.

stalled. There was little to do but build some greens and traps, change the water system a little and so with a budget of slightly less than $20,000 course construction started in March under the direction of Bill Johnson, planning consultant and advisor.

By June the course was ready and opened. The first month of operation justified Anderson and the Recreation Commission in their thinking — and it astounded some people! The total play for the first month totaled 4600 rounds of golf and poured $2792 into the city coffers. That first month's play also brought into sharp focus the question—where are the golfers coming from?

Soon after opening Anderson set about to find the answers to the many questions. Spot checks were made over a period of weeks and hundreds of golfers interviewed. The spot check sheets carried 40 lines and after several days the sheets began to show the same general pattern and by the time several hundred golfers were interviewed, Burt was able to draw some conclusions. He had the answer to some questions.

Taking one-day's sample spot check it was found that there is no noticeable age group using the Short Course. Neither junior or senior golfers were in sufficient numbers to indicate a definite age trend. On the sample check-sheet there was one girl of 15 and a man of 61. The average age of the 40 players was 38, which would probably be classed as middle age and a duplicate of what one would find on a similar spot check made on the regulation courses. So, no particular age-group is using the Short Course.

As to male or female, the sample sheet indicated 28 men and 12 women—again about normal for an 18-hole course.

Half of Players Beginners

The next question—and the vital one to recreation officials—was where did the individual start his golf career? This surprised many and is a concrete indication of how important these Short Courses are in the over-all golf picture.

Twenty-one of the 40 started playing golf on the South Gate course. Five started on a nearby golf range. So, twenty-six out of the 40 were brand new golfers!

Hence, it appears obvious that these Short Courses are and will be spawning grounds for the regulation courses. In this connection, the spot check attempted to determine how often the Short Course player went to the regulation course—if ever. Fifteen of the 40 had never played a full length golf course. But, they will.

Most of the players interviewed circled the South Gate course two to three times a week.

Some typical individual comments are interesting. One 37-year old golfer, who started playing golf in Michigan and had played since he was 12, played the South Gate Shore Course three times a week and only occasionally played a regulation course. He didn't have time, he said. Another 38-year old golfer who started playing in the Chicago area six years ago, plays the Short Course regularly three times a week and once a week plays a nearby regulation course. Another golfer of four years experience, plays twice a week on the South Gate course and once a week on the long course. These two keep their short game sharp that way.
The 61-year old man started two months ago, plays six times a week and has never yet attempted a full round on a regulation course. He probably will. The 15-year old girl has been playing the South Gate course regularly twice a week since it opened but has never played a regulation course. Will she? You answer that!

Then, take the case of the woman, 39, who started three months ago at the South Gate course, plays it twice a week, and has now played three times on a full eighteen. She is typical of the case history of most of the South Gate players. They start on the driving range or the Short Course and soon have played a full 18-hole course, but as indicated by many spot checks, still play the Short Course one to five times a week.

Short Course Here to Stay

The "regulars" at South Gate are playing the course on the average of four days a week. Many, every day. During the California daylight-savings times heavy play continued until the golfers needed flashlights to finish. While most of them seem content to circle the 9 holes only once, many play 18 holes and many 27 or 36 holes. Regular foursomes are beginning to meet there on regular days each week, just as has been the habit of golfers for 300 years.

The Short Course is not a fad or a

Their place in a city's recreation program is beginning to take shape. They provide golf to an over-all recreation program as sure and certain as does the 18-hole course. They have won their place in the golf picture and can be built and operated successfully—not only in areas which have only limited areas available, but are a good use of any given number of acres. They are additional golf facilities in connection with existing courses and they can be built and operated successfully in areas not adjacent to regulation courses.

They can be stuck away in the corner freak. It is fast becoming an integral part of the game and many people are certain it will be with us for a long, long time—at least, as long as golf is played anywhere and that should be long enough of a regional park to supply needed revenue to ease the tax load for recreation. They can be used to beautify a problem piece of property—and will pay for the privilege. They can be stop-gaps in a long range golf program and can be opened to produce needed revenue, while an 18-hole course is being constructed, and remain as a sister attraction. There is really no end to the uses to which they can be put and no ceiling on their popularity, as proven by the South Gate spot-check.

Turf Field Days and Conference Schedule

<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUTGERS</td>
<td>New Brunswick, N. J., Aug. 2</td>
<td></td>
</tr>
<tr>
<td>U OF FLORIDA</td>
<td>Gainesville, Fla., Aug. 9-11</td>
<td></td>
</tr>
<tr>
<td>RHODE ISLAND</td>
<td>Kingston, R. I., Aug. 10-11</td>
<td></td>
</tr>
<tr>
<td>TEXAS REGIONAL</td>
<td>San Antonio, Aug. 20</td>
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<tr>
<td>PENN STATE</td>
<td>State College, Pa., Sept. 7-8</td>
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</tr>
<tr>
<td>OHIO</td>
<td>Wooster, Sept. 15</td>
<td></td>
</tr>
<tr>
<td>ALBERTA</td>
<td>Edmonton, Can., Sept. 23-24</td>
<td></td>
</tr>
<tr>
<td>NORTHWEST</td>
<td>Pullman, Wash., Sept. 27-28</td>
<td></td>
</tr>
<tr>
<td>UTAH</td>
<td>Utah Copper GC, Magna, Sept. 30-Oct. 1</td>
<td></td>
</tr>
</tbody>
</table>

The rules and regulations needed for the short-course must be simple, since many golfers start on short courses. However, here is a good place to start a golfer's education as to golf etiquette. Here are South Gate's rules. Player passes board on way to first tee.
MEMBERS THE BEST GOLF
THEY'VE ENJOYED IN YEARS!

Spalding SYNCHRO-DYNED® TOP-FLITES® provide you with the most sensible and convincing sales punch of any golf clubs made today. The SYNCHRO-DYNED club principle is a Spalding exclusive . . . giving an identical contact feel to every club in the set. Scores of golfers say they’ve cut handicaps by as much as ½ with these great TOP-FLITES that offer so much in new accuracy and new control.

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The new Spalding DOT® with the exclusive DURA-THIN* cover is a high-compression ball with top performance and brand-new durability. The DURA-THIN cover resists bruising and cutting up, even on ball-killing high-iron shots. And this longer “life” makes the new DOT an economical buy for any golfer.

For maximum distance and uniformity of flight, you can’t beat this long-lasting new Spalding DOT. It’s the best ball to sell and the best ball to play. Spalding TOP-FLITE clubs and DOTS sold through professionals only.

*Trade-mark
Kentucky Bluegrass Still
"Old Reliable" in North

By H. L. LANTZ
(GCSA address)

THERE are over 5000 species of grasses in the world and around fourteen hundred are found in the United States. The great group of grasses belong in one family, Gramineae.

The root systems of grasses are always fibrous, and are excellent soil binders. The flowering stems are jointed, are usually round and hollow between the nodes. Stems may be erect, or with bent knee-like bases, or they may trail on the surface of the ground (stolons) and root at the nodes, or they may grow in the top few inches of soil (rhizomes).

The leaves of grasses are always parallel-veined and vary from very narrow to broad in width and from short to long.

The flower clusters of grasses are always made up of a number of subdivisions called spikelets which may be arranged in panicles, or two rowed spikes, or one sided spikes or racemes. The flowers of grasses are minute in size, are simple and very similar and are rarely used in classification.

Cool season grasses can be loosely defined as those grasses which are adapted to areas of the temperate, moderate rainfall areas of the midwest, northwest, east and northeast; a region which comprises the areas of Missouri on northward and as far west as those parts of Kansas, South and North Dakota which enjoy moderate precipitation, and eastward to the Alleghenies, the New England states and also Northward into the provinces of Canada.

No one of our commonly used turf grasses or any combination of turf grasses is equally well adapted to all parts of this great area. Rainfall, summer heat, winter cold, and the various soils all have definite influences on how grasses behave. Excessive summer heat and deficient moisture may be responsible for poor stands of grass or even the elimination of a grass that survives under more equitable temperatures and moisture.

If I were to ask golf course superintendents to select one grass that has for many years been one of our most reliable cool season grasses, their vote would in all probability be for Kentucky bluegrass, Poa pratensis. Kentucky bluegrass is found in nearly all parts of America, but in no region is it more at home than on the fertile black loamy soils of the midwest region. Here it has been the backbone of our turfgrass cover. As we go northward bluegrass becomes increasingly satisfactory as a turfgrass cover for lawns and fairways. The reason for this is due to a higher average of precipitation during July and August than is enjoyed further south and west.

Moisture In Bluegrass Control

This leads us to propose that moisture is the chief controlling factor and determines whether Kentucky bluegrass will make a tight, tough, and beautiful turf so much desired by those who wish good lawns and dependably good fairways. In Iowa and in the adjacent states, hot dry weather in July and August may prevail and result in browned-off grass. And a cease-growth period lasts until the first good rain in late summer or fall. Within a few days after a rain bluegrass greens up rapidly.

The tenaciousness with which bluegrass holds on to life can be well illustrated by the Midwest experience of 1953. The last appreciable rain fell about June 20. During the balance of the season there was no precipitation and there was no snow cover until the first week of March 1954. In April and May of 1954 acres of fairway turf appeared to be dead but with good precipitation until June 21 of 1954, the dead-appearing areas began to come to life. The bluegrass in some instances was thin but nevertheless here was further evidence of the great staying power of bluegrass.

In 1954, Iowa again experienced a dry hot period from June 21 to August 15. Again bluegrass all over the state went brown and off color. Abundant rains after August 15, and bluegrass produced a marvelous resumption of growth! Seldom have we seen handsomer lawns and fairways than prevailed in Iowa during late summer and on up to November 1. Another
Here's the equipment—
Worthington equipment includes front-wheel-drive, dump body, and hill-hugging standard tractors; fairway and blitzer mowers in 3- to 9-gang combinations (standard and self-lift models) as well as self-powered and power-take-off rotary mowers.

Here's what it does—
Worthington Units are designed for heavy-duty mowing on golf courses, parks, highways, estates, cemeteries, airports and institutions. Whatever your mowing problem may be, Worthington has the right answer with the right equipment.

and here's the offer!
Worthington Mower Company, through Authorized Dealers, will—with no obligation—survey your mowing needs and demonstrate the right equipment for your requirements at any time and any place. Just write us—we'll do the rest.

Write for your demonstration, today!

The world’s finest line of large-area mowing equipment

WORTHINGTON MOWER COMPANY
STROUDSBURG, PENNSYLVANIA
demonstration of the marked role played by moisture. Infrequent, heavy watering on fairways and lawns will maintain good, strong, green bluegrass turf in Iowa throughout the season.

Disease: Kentucky bluegrass in Iowa has some infection nearly every year, of leaf spot (Helminthesporium). Seldom does leaf spot do extensive damage. Other diseases such as rust, curvularia, and brownpatch have not been a problem in bluegrass.

Weed Problem Diminishing

Weeds: Before the introduction of 2,4-D in 1945, dandelions, broadleaf plantain, and narrow leaf plantain were a real problem. Thanks to 2,4-D all turfgrass areas may be kept relatively free from the broadleafed weeds.

With crabgrass it is another story. Once established and permitted to seed, crabgrass becomes a serious competitor of bluegrass and does more to ruin good turf than any other weed. Progress in the control of crabgrass is being made. Phenyl mercuryes have demonstrated value, as has potassium cyanate. Last year plots treated with Crag 1 were outstanding. These were preemerge treatments, and will be further investigated in 1955.

Fertilizers: There are fairways in Iowa which have had no fertilizer applications for 20 or more years, and are still producing excellent tight turf. Many fairways on thinner soils are greatly benefited by annual applications of 40 to 60 pounds of actual nitrogen per acre.

Management: Nothing is more important than skillful management. The informed superintendent will as a rule have soil tests run particularly on those fairways where the grass lacks vigor, is weedy and off color, and then will apply the needed plant food materials, and lime, to feed the grass and induce better growth. He will also in so far as is possible destroy weeds and thus make available to the grass the soil moisture and plant food materials required to grow weeds.

Compaction Problems

Aerification: Fairways are terrifically compacted. It is true that freezing and thawing have a beneficial effect on the soil during the winter. But during the wet spring and early summer months, grass
You'll want the complete story of these amazing new

GLASSHAFT* CLUBS

GOLFCRAFT'S New Shaft Design Increases Accuracy and Distance

For years, golf club manufacturers have recognized the problems of excessive vibration and distortion inherent in steel shafted clubs. They’ve known that steel shafts "shiver" and "flutter" at impact—that power is lost through impact vibration—that shaft distortion and resulting club head wobble reduce both distance and accuracy.

Now, Golfcraft has found the answer to these basic disadvantages—a shaft made of the modern miracle material, Fiberglas, laminated to a thin steel core. Glasshaft is the name and the four amazing stroboscopic pictures on this page will show you how and why it is rightfully called "the greatest improvement in golf history."

PROOF POSITIVE in these Stroboscopic Pictures!

Photo No. 1 (above) shows a steel shafted club in action. Notice the shaft distortion—a direct result of excessive vibration. Here you're witnessing the dissipation of power and the undermining of accuracy.

Photo No. 2 shows how the new Glasshaft club performs under identical circumstances. Notice the absence of shaft distortion! The reason lies in the amazing shock-absorbing characteristics of Glasshaft construction—Fiberglas laminated to a thin steel core. Remember, distortion is the direct result of vibration—and Glasshaft virtually eliminates vibration!

Study photo No. 3 (above). Here's a steel shafted club shown at moment of impact and during a portion of the follow-through. See how vibration and distortion literally bend club head out of line!

Now study photo No. 4. Vibration and distortion are virtually eliminated from the Glasshaft club. Club face remains true to line of flight. And notice lower trajectory which adds distance to every full shot . . . 10 to 30 yards!

Write for the complete story of Glasshaft . . . the clubs so many professionals are using and recommending with unprecedented enthusiasm.

Address GOLFCRAFT, INC.,
Escondido, California.
requires mowing. Tractors and mowing equipment must run over the wet soil and compaction is inevitable. Aerification of fairways will alleviate compaction. There is need for extensive and intensive research to determine when and how often and under what conditions aerification will best improve soil tilth and encourage better growth.

Kentucky bluegrass will long be relied upon throughout the middle west for general turf purposes. Good management will do as much for bluegrass, as it does in maintaining golf greens. Botanists tell us that there are some 400 species of poa. Kentucky bluegrass, based on long years of experience, shows as the queen of them all.

New and Special Purpose Grasses
Based on our plot experiments at the Iowa Agricultural Experiment Station, and experiments of a similar nature which are being conducted in practically all the cool season grass areas of the United States, we have convincing evidence that turf research is on the threshold of discovering, or originating new and superior grasses, that may produce better turf for general or specialized use.

One advance appears to be Merion blue grass. The plots at Ames, part of which were established in 1949, and a larger plot area in 1952, demonstrate that Merion is superior to Kentucky bluegrass, as a lawn grass. There is every reason to believe that Merion will prove to be a superior turfgrass on fairways.

Merion in our plots required a year longer to develop into a good tight sod than is required by ordinary bluegrass. It tends to be dwarfish in growth and probably would require less frequent mowing than Kentucky bluegrass.

At no time has disease been a problem in any of the bluegrass plots at Ames. Helminthesporium can be found in most seasons, but apparently there has been no damage of consequence. Curvularia has never been serious. Rust on unclipped Merion was severe in 1954. Merion plots mowed at 1 in. have not been attacked by rust. Unclipped Kentucky blue and Arbotetum adjacent to Merion were not attacked by rust.

Common creeping red fescue, Illahee and Pa. 74 in combination with the bluegrasses in sunny unirrigated plots have not been impressive. Our conclusion to date is that on Iowa’s rich black loam soils, the red fescues are not likely to be valuable in a blue grass mixture except in shaded or partially shaded areas.

Seeded alone in 1952 plots Pa. 74 suffered considerable winter kill during the dry open winter of 1953-54. When mixed with bluegrass, little or no winter damage to the fescues was apparent, but there is no evidence that the bluegrass and Merion plots were improved by seeding with the fescues.

Alta fescue alone and in bluegrass mixtures has been very impressive. During the hot dry summer and fall of 1953 the Alta plots remained green until November, a remarkable characteristic as contrasted with the bluegrass plots which browned off in August.

It is interesting and pertinent that the 1949 mixed plots of Alta and Kentucky bluegrass have remained green and succulent until November nearly every fall. These plots were seeded to equal parts by volume of bluegrass and Alta. The Alta has never been dominant but has been present and very noticeable because of its broad leaves. During 1954 it became apparent that Kentucky bluegrass was gradually becoming dominant in these plots. In fact in plots which were seeded to Alta