



The high maintenance standards of Yeamans Hall is evidenced by the meticulous grooming of the entrance gate and its surroundings.

SOUTHERN LUXURY

J. K. Hanes, superintendent of Yeamans Hall Club, tells how he meets high play-standards his members demand

YEAMANS HALL CLUB is located ten miles north of the city of Charleston, S. C. The 900 acres of property, including the ruins of an old mansion, were purchased in 1924 by a group of wealthy northerners and has been developed into an exclusive winter resort and golf club. The property was covered with a growth of heavy timber which had not been disturbed since colonial days.

Development of roads, homesites, parks, grounds and an area set aside for an eighteen-hole golf course has been carried out under the direction of Olmsted Brothers, landscape architects of Brookline, Mass. The soil for the most part consists of a very deep sandy loam and the surface is undulating, affording perfect drainage, so that no serious damage results from excessive rainfall.

Up to date the corporation has expended about \$1,000,000 in the general development. Winter homes have been erected by thirty-three of the members of the club at a cost of another million. The 18-hole course was designed and constructed in 1924-25 in accordance with the plans and under the personal direction of Seth J. Raynor.

The course is open for play from mid-November until mid-April. In this locality no grass has been developed which will provide a satisfactory turf throughout the year. The temperature ranges from an extreme of 95 degrees to 100 degrees in the summer months and falls to as low as 18 degrees during cold spells. Northern grasses such as the bents, fescues, and Kentucky bluegrass do well during the

winter months but are killed by the hot sun during the summer. Bermuda grass, almost universally used as a turf through the Southern states, turns brown during the winter months in this locality and does not stand up well under play. This grass is not killed, however, as its deep rooted rhizomes and stolons came back in the spring and afford a wonderful turf on our fairways during all of the summer months. The application of domestic rye grass on all of the fairways affords an attractive green color, protects the underlying Bermuda and improves the "lie."

Course Played Only 5 Months of Year

Yeamans Hall Club is primarily a golf club. It is, therefore, of paramount importance that the golf course be kept in perfect condition during the five winter months. In order that a clear conception may be had of the problems by which we are confronted, it will, perhaps, be well to give a brief outline of the work which is done throughout the year in the maintenance of the course.

All fairways are mowed once or twice a week during the summer months, even though no one plays the course for the seven months between the middle of April and the middle of November. They are mowed once a week or every other week during the winter months. The mowing

Although the course is played over but five months in the year, greens are mowed daily.



is done with a five unit gang fairway mower drawn by a special fairway tractor.

About the end of April when the Bermuda begins to come back 50 lbs. per acre of sulphate of ammonia is applied on all the fairways. This application is repeated during the third week in May and again in the first week in July. The sulphate of ammonia used is in granular form so that it is readily applied with our wheelbarrow seeders.

Those who know or have heard of Bermuda grass as a stubborn farm weed think of it as a tough and aggressive grass quite capable of holding its own against any weeds. However, under our conditions it has as hard a time struggling against crab grass as do the less aggressive northern turf grasses in regions where crab grass thrives.

Crab Grass Removed by Hand Weeding

During the summer months a large force of negro women, numbering from 30 to 60, is employed in weeding crab grass on the course. Crab grass is an annual and is reproduced only from seed so that it becomes necessary each year to weed the course as the seeds germinate. Interesting experiments are being conducted in the eradication of crab grass by the use of sodium arsenite, lead arsenate and sulphate of ammonia. The last chemical, in powdered form and applied at the rate of one ton per acre, has proved quite effective in killing the crab grass and ultimately stimulating the growth of Bermuda. Experiments are also being made in applying sulphate of ammonia in solution at the same rate, using a spraying apparatus. We have found, however, that best results have been obtained by hand weeding. During the coming year we expect to carry these experiments further.

Early in August, when the effect of the

last application of sulphate of ammonia dies away, an application on all fairways of 500 lbs. per acre of a complete fertilizer is made and a similar application follows about mid-September. This complete fertilizer yields in analysis: 6% nitrogen, 7% available phosphoric acid and 5% potash. The ammonia content in this fertilizer consists of 60% organic nitrogen and 40% mineral nitrogen.

During the first week in October domestic rye seed is sowed on the turf on all fairways at the rate of 125 lbs. per acre. In sowing this seed we use wheelbarrow seeders. During next season we expect to increase this application of rye seed to 200 lbs. per acre.

For all purposes at the Hall we use annually 16 tons of domestic rye seed. We have obtained this seed through local agents, directly from the growers in Oregon, and it comes to us by steamer through the Canal.

The greens and tees on the course are mowed every morning throughout the year with hand mowers and water is supplied as needed through rotary sprinklers, the watering during the summer being done at night.

Allow Rye to Die of Thirst

When the club closes on April 15th, the greens are mowed very close and no water is applied, in order that the rye grass may die out as quickly as possible. As soon as the underlying Bermuda begins to show up well an application of complete fertilizer at the rate of approximately 100 lbs. per green is applied with a hand fertilizer machine. After applying this fertilizer, greens and tees are topdressed with a sandy loam, properly screened, at the rate of 2 to 4 yds. per green. Throughout the year both greens and tees are carefully

hand weeded. In mowing the greens all clippings are caught and removed.

About the middle of October the greens, ranging in size from 7,600 to 11,000 sq. ft., are closely mowed and seeded in domestic rye grass at the rate of 45 lbs. per 1,000 sq. ft. A hand fertilizer distributor is used in sowing this seed. The greens are then topdressed with screened soil in which has been mixed complete fertilizer at the rate of 200 lbs. per average green. It takes approximately 3 to 4 yds. of this topdressing to cover a green. The topdressing is applied by hand labor, using broad wheeled wheelbarrows and scoop shovels. The topdressing is leveled off and distributed with scrapers and wire mats and the greens are then thoroughly watered. As the rye grass germinates the greens are kept mowed and about once a month an application of 30 lbs. of sulphate of ammonia is made on each green and watered into the sod. During the winter months water is applied to the greens through rotary sprinklers during the daytime whenever needed.

In January the greens are again topdressed very lightly with the topdressing prepared as stated above at the rate of about 1 yd. to the green. This last application is made by hand from buckets. The tees receive the same treatment as the greens in respect to mowing, weeding, fertilizing and seeding, except that the application of domestic rye seed in October is at the rate of 25 lbs. per 1,000 sq. ft.

In addition to crab grass referred to before, we have had a great deal of trouble with pennywort, but this weed is readily eradicated by several applications of sodium arsenite.

Grubs Damage Fairway Turf

During the past season we suffered from an unprecedented infestation of the large southern green June bug. The grubs of these bugs have infested our fairways and killed most of the first planting of rye grass and seriously damaged the Bermuda. The infestation was not discovered in time to poison the course with arsenate of lead.

During the coming season we intend to apply arsenate of lead at the rate of 5 lbs. per 1,000 sq. ft. It will take approximately 5 tons of this chemical to cover our fairways. We are very hopeful that the application of arsenate of lead will also discourage the growth of crab grass. All of the greens and tees have been treated with arsenate of lead heretofore and we

have had no trouble on these with grubs.

In order to repair to some extent the damage by the grubs on our fairways, we are now re-seeding the course with rye grass seed. The fairways on the course are in very bad condition this year from the above causes but our greens and tees are as fine as could be desired.

A satisfactory sand for use in the traps is found on the property, lying a foot or two below the surface. This sand is white, rather fine in texture and does not "bond" or pack. The "rough" is kept closely mowed during the summer months, using a horse-drawn mower and a similar mower attached to the fairway tractor.

The course was laid out for the most part through heavily timbered lands and from year to year most of the deciduous trees have been removed and replaced with evergreen trees indigenous in this locality, so that practically all of the visible forest growth is green throughout the winter. Most characteristic of the wooded areas are stately pines and ancient live oaks, draped in Spanish moss. The forest margins along the fairways are kept free from weeds and undesirable undergrowth and all trees in the open spaces are pruned and fertilized where necessary. The property is bounded on three sides by the waters of "Goose Creek," a tributary of the Cooper River, and in many places along the course vistas have been cut giving interesting views across the salt marshes.

Yeamans Hall is a member of the United States Golf Association and we have had the assistance of Dr. John Monteith, Jr., in all matters connected with the maintenance of the course. He has been especially helpful in the matter of fertilization and weed eradication. He has found it possible in recent years to make two trips to the Hall, one in the spring and again in the fall, and much of our success in solving our problems has been due to his interest and advice.

Badminton Booms — Badminton continues to gain ground as a country club sport. The Camargo club (Cincinnati district) recently has installed two courts in a separate building. The building is a Truscon steel structure.

No greens course at Wisconsin—James G. Moore, Chairman of the Department of Horticulture, College of Agriculture, University of Wisconsin, announces that there will be no greenkeepers' short course at Wisconsin this year.