Program for 12-Months Course Care in South Is Outlined*

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IN KEEPING a course open for play the year round, the main thing to strive for is to have the best possible turf at all times, giving consideration first to the greens, second to the fairways, third to the rough areas, and fourth to the tees, and do it economically.

The greens come first since they are the places each golfer is playing for, and usually reaches although some do it in a roundabout way and wonder why they have to pay greens fees. It's hard nowadays to get something for nothing. Recently, I came across an article about a man - and he could very well have been a golf course superintendent --- who was rushing his wife to the hospital in anticipation of a blessed event. In spite of all the rushing, he didn't quite make it in time and so the event took place on the hospital lawn. Everything went along fine, and he was given a bill. After checking it carefully he went to the doctor and said that the bill seemed to be OK except for the charge of the delivery room which wasn't used. The doctor said that was right so he took the bill, made a correction and handed it back to the man. Upon examining it the man found that the doctor had crossed out "delivery room" and had written "greens fee" in its place.

So you see, although some golfers do not use the fairways, they all use the greens and maybe that's where "greens fee" came from. Anyway, special attention should be given to the greens. Since the ball's movement is on the surface of the green, it is essential that this surface be smooth, and of uniform texture. Selection of the best strain of grass whether it be from seed or stolons is the main consideration here. The grass will be one that it adapted to the particular location in which it is to be used, is of fine texture, is hardy and resistant to disease, and is aggressive enough to hold its own in competition with other grasses and weeds.

Greens should be mowed as often as needed and as determined from the growth which is regulated by temperature, fertilizer and moisture. Height will vary from 3/16 in. to 5/16 in. depending on growth and temperature. Fertilizer should be applied at fairly regular intervals in sufficient quantities and of the proper analysis to provide for healthy and uniform growth. Lime requirements should be applied as indicated by soil analysis. A preventative schedule for the application of fungicide should be followed rather closely. The old saying — an ounce of prevention is worth a pound of cure - still applies and is well worth observing. Infestations by insects should be watched for closely and controlled as soon as possible. Prevention is better but not always possible. The insecticide will depend some on the type of insect but chlordane rates high, and the old standby arsenate of lead is still probably best for greens. The problem of weeds will be greatly lessened by keeping the turf grass in a healthy growing condition. Control measures should be taken when needed using a material that is recommended for the particular weed in question. Greens should be aerified when needed, preferably before the application of fertilizer, lime or topsoil.

Top-soiling Good Practice

Topsoiling, in spite of the expense, the inconvenience to golfers and the wear on the mowers, is still good practice and oftentimes the only thing that will improve a green. The topsoil should contain a good percentage of sand and should be applied as often as needed in sufficient quantity to do the job right. By working it into the grass and watering afterward, it will not interfere with either the golfer or the mower very much. Watering practices will be governed by rainfall and should be done when there is insufficient rainfall to supply the requirements of the grass. Heavy waterings at longer intervals are usually preferred to frequent light waterings. However, the frequency will be determined by the grass root depths, and how rapid the surface moisture dries out. The grass will show this when it begins to wilt.

All of the abovementioned treatments should be done at any time they are needed,

^{(*1954} GCSA conference address)



AKRON SUPTS. DRAW 1400 TO LAWN CLINIC

Ohio golf course supts. drew 1400 to pack Akron's Central High auditorium on a sleety early spring night. The superintendents starred in the annual Lawn Clinic put on by the Akron Beacon-Journal. The lawn clinic idea was started in Akron 6 years ago when Bill Lyons gave a lawn and garden talk arranged by the Beacon-Journal garden editor Mrs. Kate Clapp. This year the paper's promotion department gave the idea the full treatment and with advance publicity public interest in the meeting grew so the intended meeting hall wasn't large enough and a late switch was made to Central high. After an introductory talk on lawn care by Lyons he announced that 14 experts for Ohio golf courses would go through the crowd answering questions. They were swamped and next morning so were the lawn supply dealers. Their stocks of many lawn equipment items and supplies were cleaned out. Next year the Beacon-Journal plans an even bigger promotion featuring the supts. as the men with all the right answers for good lawns. Supts. who participated were Bill Lyons of Firestone Tire and Rubber; E. M. Kirkhart, Youngstown CC; Carl Springer, Congress Lake CC; Ken Springer, Fairlawn CC; Nelson Monical, Portage CC; Ernst Ranck, Mayfair CC; Colin Smith, Shaker Heights CC; Larry Wolfe, Rosemont CC; C. L. Deming, Sleepy Hollow CC; M. A. Matteo, Mayfield Heights GC; Robert Fannin, Kirtland CC; C. R. Burris, Acacia CC; and K. B. Crandall, Cherry Ridge GC.

and arranged so as not to interfere with play any more than necessary.

Keep Golfer Happy

Give the grass first consideration, but keep the golfer closely in mind. The golfer pays the bill. He wants good grass to play on so keep him as happy as possible.

Great care should be taken when applying the materials to get them on evenly and to avoid any possibility of burning the grass. Having the proper equipment can save dollars as well as trouble.

Cups should be moved as often as needed — every day when play is heavy. The main purpose is to distribute the wear, but it is also a means of changing the play of the hole.

Care should be taken to select the best grass on the green, smooth the area close to the cup as this soil swells up when the hole is cut, and set the cup to the proper depth. Any grass extending into the hole should be trimmed with scissors to make a neat appearance. The cup plug should be replaced to fit perfectly. Low plugs will have long grass in them, high ones will be scalped by the mower and ones packed too tight, to make them fit, will probably die.

Painting the inside of the cups white improves their appearance and makes them easier to see. Ball marks need to be repaired daily when the play is heavy. By squeezing some of the surrounding turf into the scar they can be effectively fixed. The USGA recommendation of keeping the cup 15 ft. from the edge of the green is a good one to follow for every day play as well as tournaments. This prevents getting the cup too close to a trap or a sharp slope at the edge of the green.

In view of the many things required for the maintenance of the greens, it is easy to see that a large part of the labor, considerable supplies and special equipment are devoted to them.

Study Green Size

Therefore, it is evident that economy would be greatest by having the greens of a size to take care of the heaviest play when there is maximum wear. By reducing the size of greens that are larger than necessary, substantial savings could be made at once in labor and supplies. Since the equipment would have less work to do at each operation, it would have a longer life before needing replacing. The golf would not be seriously affected by smaller greens. True, the target would not be as large to shoot at, but in a lot of cases the whole green cannot be seen anyway for the approach shot. More chip shots would be used that would have been putts on a larger green.

After the greens, consideration is given next to the fairways, since they are designed to be used in getting the ball from the tee to the green. Since the ball travels mostly over this turf, rather than on it, it is not necessary that the fairway turf be maintained anything like the green. The fairway turf is a resting place from which the ball is hit to the green and therefore should be good enough for the ball to sit up on, instead of down in.

Reference is made here to the position of the USGA about Winter Rules, or improving the lie of the ball. It's really taboo with them. As with the greens, the main thing is to have a good grass that is adapted to the section in which it is used. It need not be a fine-leaved grass, but rather one that forms a dense turf and is very aggressive. Fairways should be mowed as often as necessary and as close as possible without injuring the grass, so as to give a clean lie and to promote thicker turf. — $\frac{3}{4}$ in. is a good height.

Fertilizer should be applied as needed to keep the grass growing good, and lime as needed and indicated by soil tests to keep the Ph at the proper level for the particular grass being grown.

Insects and weeds need to be kept under control by the use of materials recommended for them. Chlordane is effective against most insects including ants and has the added advantage of residual effect. Sodium arsenite is a good weed killer, but must be used correctly and with extreme caution as it will burn seriously. It is economical and will give good results when handled properly.

Aerification can be done at any time

when there is sufficient moisture and preferably before applying fertilizer or lime. Dragging and mowing afterward makes a finished job.

Watering concerns only those courses with watering systems and should be done often enough to meet the requirements of the grass.

Divots should be kept repaired as the play demands.

All the work should be done as much as possible when it interferes least with the golfers. But since the working area is larger, this will not be as serious as it is on the greens.

Smart Care of Rough

The rough areas, including adjacent wooded areas, should not be neglected. The beauty of the course is enhanced when they are properly groomed and cleaned up, and the golfer who strays, benefits by the fact that he can at least find that ball that cost \$1.10 even if he can't play it. By finding the ball quickly, play is speeded up, resulting in happier golfers and more golfers naturally more greens fees.

The grass in the roughs may be of any kind — even weeds — to give a ground cover. The area should be mowed regularly and kept short enough to find a ball in it without too much looking, yet long enough to present a more difficult shot than would be had from the fairway. The height of cut will vary with different grasses. Bare areas will look better with some kind of grass on them, and the need for ball washing will be reduced.

Tree areas will look better by cleaning out all the dead wood, both on the ground and standing, and by keeping the scrubby undergrowth cut. In areas where it is possible to use rotary type mowers (both tractor drawn and self-powered) they will do a wonderful job of cleaning up practically anything in sight, long or short grass and weeds, leaves, brush, even the operator's hat should it fall off. Those who have seen these machines operate will swear by them - not at them. They are very rugged and economical to operate if properly taken care of - needing only the replacement of belts and blades on the tractor models. They are really labor savers and will soon pay for themselves.

Tee Care Outlined

Usually the rough areas aren't given any consideration in regard to fertilizer, liming, watering and aerifying as this expense wouldn't be justified. Weed and insect control is advisable under certain conditions, *(Continued on page 81)*

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mainly to prevent their spreading into the turf grass areas.

Tee Care Outlined

Tees are given last consideration, not because they aren't important but because of the fact that the golfer has the privilege of teeing his ball up to a good lie instead of trusting to luck as he does when it comes to rest on the fairway, in the rough or on the green.

Grass on the tees receives terrific wear. It is more pleasant to play off of grass than bare soil and because of the first impression that a person gets when he walks up to the tee tees should be large enough to take care of the wear, especially on par 3 holes. Grass should be the toughest and most aggressive available so that it will stand the wear better and heal faster.

Tee markers should be moved as often as play demands in order to spread the wear and change the play of the hole, making sure the markers are properly lined up. Divots should be repaired often so they will heal over while other parts of the tee are being used.

Fertilizer and water should be applied about the same as it is on the greens to assure good growth. Lime requirements should be determined by tests, and weeds and insects should be controlled. Aerifying and topsoiling are good practices when needed, and growth will determine mowing which fairway mowers should be able to do.

Each tee should be provided with a ball washer and towel, a trash container and at least one bench — two would be better, while the first tee and par 3 tees could use three or more. All course equipment should be kept in good repair and appearance. This means painting too and don't spare the paint. Bright colors are very attractive and should be used where appropriate. Most things will need painting twice a year and some things such as flag poles, tee markers and ball washers possibly three times. Flags should be replaced as needed — two or three times a year. Ball washers should be kept clean, inside and out, filled with water to which a little soap is added and clean towels provided. Benches need to be moved with the tee markers and trash containers emptied regularly.

More Grass Hazards

I thought of leaving hazards out because that's where most golfers would like them. But since they are present they have to be maintained. The most common hazard is the sand trap and since they require such a large amount of hand labor, it would be more economical to substitute grass hazards for them wherever possible or practical. So many sand traps are misplaced anyhow and instead of handicapping the good golfer, they catch the poor golfer who is already at a disadvantage and can create more hazards for himself than you ever thought possible. Most of you have no doubt seen some poor golfer take two or three strokes trying to hit a ball out of a trap and when it finally comes out it goes sailing clear over the green and possibly into another trap where he may repeat the process. It may look very funny to some, but you may be sure that golfer isn't having a good time.

If he's out for exercise, he's really getting it, but not too much fun and relaxation. A good grass hazard would usually penalize him at least a stroke which is

NEW GOLF COURSES OPENED FOI	R PLAY	IN 1954	
Paradise Valley CC, Phoenix, Arizona	18	Р	2/54
Bakersfield (Calif.) Public GC	9	SP	2/1/54
Irvine Coast CC, Newport Beach, Calif.	18	Р	2/15/54
Jaycee GC, Julesburg, Colorado	9	SP	4/54
Lincoln Homestead St. Park C., Springfield, Ky.	9	M	4/1/54
Currie Municipal GC, Midland, Mich.	9	M	4/23/54
Warsaw Cedar Hills GC, Warsaw, Missouri	9	M	5/2/54
Ruby View GC, Elko, Nevada	9	M	5/1/54
North Syracuse GC, Brewerton, N. Y.	18	SP	5/18/54
Ohio University GC, Athens, Ohio	9	S	4/21/54
National Cash Register Co. GC, Dayton, Ohio	36	I	5/30/54
Bon Air CC, Glen Rock, Pa.	9	SP	5/29/54
Lakeview CC, Morgantown, W. Va.	9	Р	5/1/54
Hickory Hills East Course, Chicago Dist.	18	SP	5/15/54

enough, and some costly maintenance would be eliminated.

Where sand traps are used, they should contain enough loose sand to prevent a player's club from hitting hard soil underneath, and it should be kept at a uniform depth. All foreign matter needs to be kept out as well as any weeds or grass which can be controlled chemically. Tracks need to be raked smooth, and after each rain the traps should be raked all over.

Water hazards should be kept in good appearance and the edges clearly defined, making sure all the wet areas are included or it will be considered as casual water. "Out of Bounds" should be marked clearly so there will be no chance for argument.

Paper should be kept cleaned up at all times, as well as other debris such as leaves, straw, bottles, cans and the like. Appropriate signs placed at strategic locations will help to remind players of their responsibilities; such as, "replace divots," "let faster players through," "no 5-ball matches," "prevent fires," etc. It is standard practice at every good course to have on each tee a marker giving the hole num ber, yardage and par.

No course can be properly maintained without the specialized machinery designed for each particular job. Suffice it to say that it is all expensive and it usually pays to buy the best, then to give it the proper attention for good service and long life. This requires care on the part of the operators and a good mechanic to service and repair it.

Transition Period Problems

As if the foregoing things weren't enough to keep a supt. and his crew busy for 12 months, there is another problem that most of them throughout the South have to face — not once but twice a year. It is called the transition period.

In the fall it is from Bermuda to rye or some other winter grass, and in the spring it is from rye to Bermuda. The fall transition is usually accomplished without too much difficulty, but the spring transition is another story. No one seems to have found the perfect solution yet. Both periods have been covered thoroughly in previous meetings and golf publications, so I won't go into detail, but this is a major maintenance problem at many courses.

Bentgrass for greens is finding increased favor in many sections of the South. This success, together with the many improved and superior strains available, should warrant the establishment of a test plot by each supt. who wants better greens the year round. This is probably the solution to the transition problem. A grass that will grow the year round; neither Bermuda or rye will do this. We all know of the great strides that have been made in the development of fine Bermudas in recent years and our hats are off to those responsible. They have filled a great need, but even with their use the transition problem still persists because Bermuda is dormant in winter.

Is bentgrass the answer or is there another suitable grass that will grow and can be used for 12 months? We can all assist in finding the solution.

Maintaining a course economically, in general requires the hiring of a good labor force that will give an honest day's work, close supervision of all operations to see that they are done right and efficiently, study of the movements of both men and machines to make every move count, careful purchasing of supplies, equipment and machinery, elimination of unnecessary operations, and substituting power for hand labor where the job can be done better or at less cost.

Among the great savers that should be essential on a golf course are a flat bed hydraulic dump truck and a tractor with loader and other attachments. All soil can



"Hermie" Wins His First in Big Time

Herman Scharlau, after years as a club pro and 18 years as asst. to Tommy Armour at Boca Raton, Fla., in the winter, made his debut as a tournament circuit winner at the Greenbrier Open. After a 3-way tie Scharlau defeated Jackie Burke and Sam Snead in a sudden-death playoff. Jackie went out on the second extra hole, and Snead fell to Hermie's birdie on the 220 yd. third. L to R: Mike Homa, Rye (N. Y.) pro and Redmond Stewart, Baltimore, Md., winners of the proam; Chris Dunphy who's giving the \$2000 check to Scharlau.

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be loaded, hauled, dumped and scattered, if need be, by one man using this equipment. For screening soil, there is a stationary, vibrating screen that can be mounted so the truck can back under it. The tractor then loads soil into the screen and it falls into the truck bed ready for use. This saves many hours of hand labor.

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Lapping-in mowers with emery dust is another expensive operation both in labor and machinery. This can be virtually eliminated for power mowers by filing the front edge of the bed knife to a sharp edge and keeping it tightened up to the reel while mowing. The same will work on hand mowers to a lesser degree.

When seeding or fertilizing with cyclone seeders, one man is usually needed to fill the seeders. He can be eliminated by rigging up a barrel with a chute at the bottom on one side where each man can fill his own seeder. A gate is needed on the chute to shut it off, and the barrel needs a false bottom that slopes toward the chute opening.

Using alcohol in ball washers to keep the water from freezing is less expensive than having them emptied and refilled each day.

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