

instance some of the larger greens have added so much distance to the hole that pin placements in the backs of greens over bunkers have not been able to be used. Shorter tees have been requested for the following year to bring the pins into play. We make certain, however, that it would not make the tee shot less demanding.

When fairway bunkers are out of reach in the tee shot landing area, we may cut a new tee up in the fairway on a carefully picked level area.

If there is a hazard out of play, and by re-contouring the fairway we can bring it into play, we often do, providing it does not eliminate the challenge of the next shot.

On the whole, we need dryer fairways than the men professionals do to bring the landing area challenges into play, and softer greens to allow for the use of tighter pins. This also gives the staff greater flexibility in setting up more challenging holes.

The types of grasses that are in the fairways and rough certainly affect our thinking in preparing a course for a tournament. Fairways that can be cut to a 1/2 inch are much easier for women to play from than fairways, such as bluegrass, that cannot be cut as short. It is very difficult for women to put enough spin on the ball if any grass at all is between the face of the club and the ball at impact. Certain teeing areas and pin positions are automatically eliminated from consideration if the fairway grass is cut higher than 1/2 inch.

We would never ask a player to play a shot with a two iron from a bluegrass fairway over a bunker to a shallow green, though we might ask her to do this from a bermuda grass fairway.

As a player, what I appreciated the most was an official who was able to demand the most from me as a shot maker without being unfair. To discern this is much harder in women's golf than men's because of the strength factor. You gentlemen who set up the course for women on ladies day have an unbelievable challenge because of the wide variety in strength and skill of your women members. The more knowledgeable players will appreciate your ability, however, and the others will appreciate you and not know why. Of course those golfers that have a good day will always love you, and those ones that have a bad day, well, they'll get you next time.

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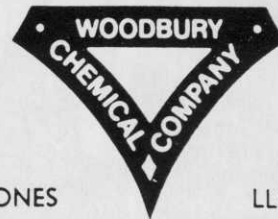
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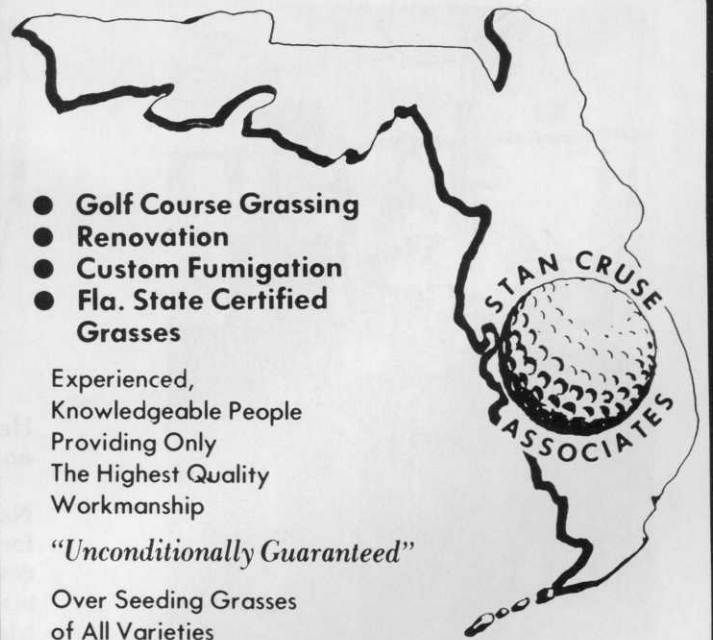
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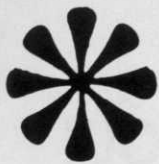
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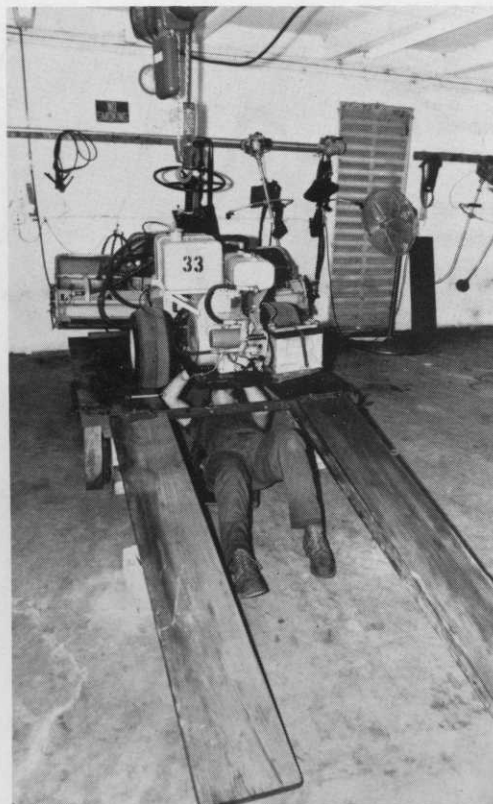
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Innovative ideas by South Florida Superintendents and their staffs . . .



Here's a "Super" idea by our association secretary Neil Kalin and his mechanic John DeRose.

Neil's neat service facility needed a way to elevate equipment for servicing. With sturdy wooden timbers Neil and his people constructed the elevated platform shown here. The "ramp" pieces are adjustable and the entire structure is under an electric chainfall mounted on track.

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(Picture story by Harry McCartha. Call us and share your ideas with others . . . we'll come to you.)

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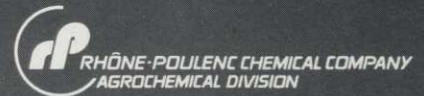
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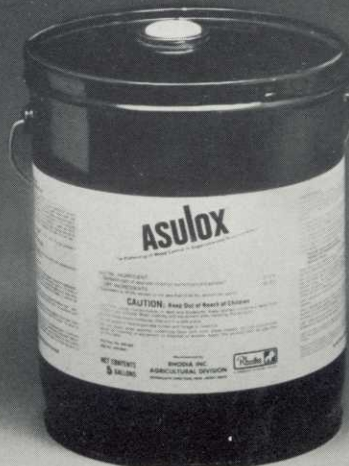
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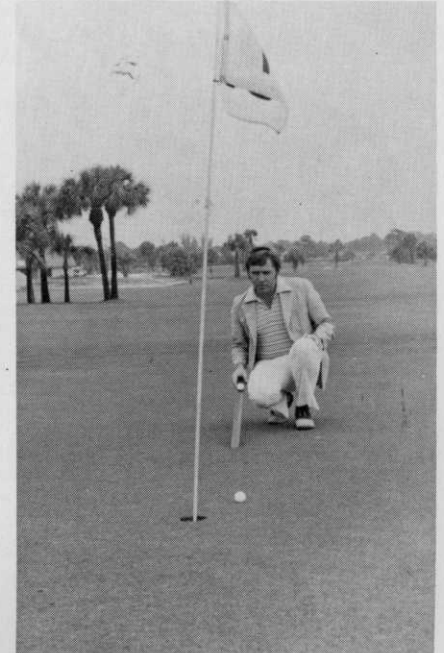
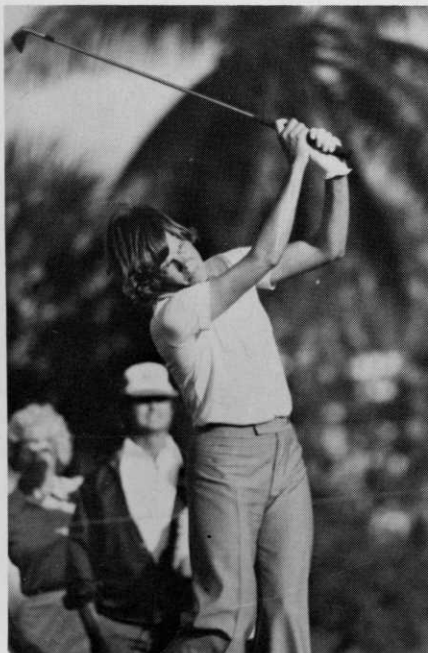
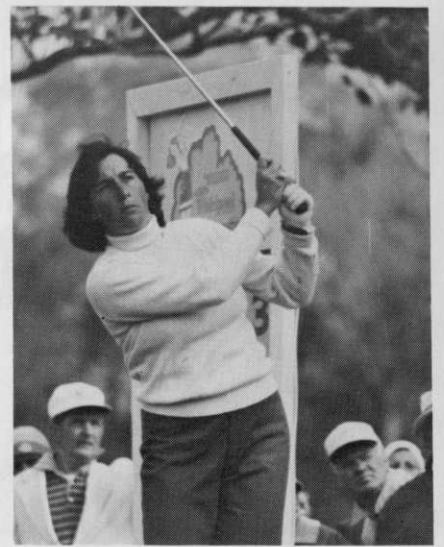
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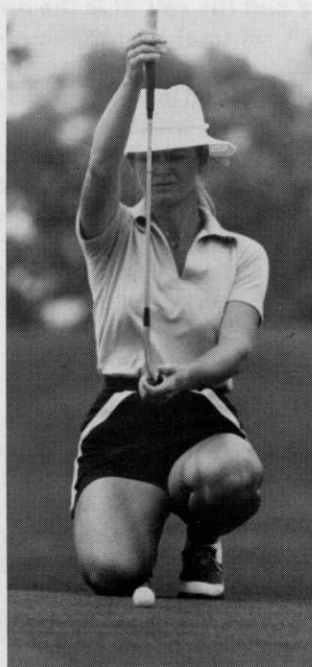
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South Fla. LPGA Tournament Photos

On the left page we show L.P.G.A. contestants at Deer Creek and on the right page pictures taken during the Turnberry Tournament by David Bailey.

Winner at Deer Creek was JoAnne Carner and at Turnberry, Jane Blalock. Superintendent Bob Strait is shown checking speed of greens (lower left page) and Editor Dan Jones is shown with Jane Blalock.



PUTTING LESSON . . .

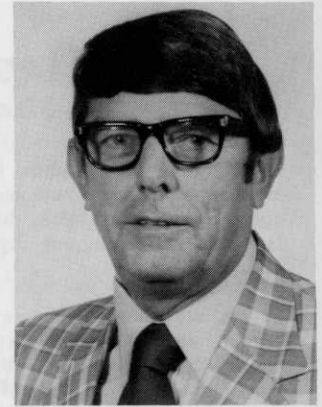
SIGHT IT,

STROKE IT,

DAMN IT! ..

Golf Course Superintendents

By HUBERT E.(AL) FRENETTE



Being a golf course superintendent means different things to different people. To some of us, it means growing lush turf; to others it means managing our course to the satisfaction of the owner, membership or city fathers; and to some it means providing the best playing conditions possible for the budget available. We all should understand that the name of the game is to get the ball into the cup. In order to achieve this goal, the superintendent must understand what is meant by "Grooming" the course and "Good House-keeping."

In order to present this subject in a logical manner, we ought to consider the normal route of play and the steps to be followed:

1. Tees

The teeing ground should provide a suitable area to begin the play of the hole. This means a level surface with good purchase and turf that allows the ball to be teed up properly. The height of cut should be such that the tee can be placed in the ground without placing the ball on the turf ($\frac{1}{2}$ " - $\frac{3}{4}$ " would seem acceptable). The moisture level should provide easy penetration of the tee and not require a hammer to drive it into the ground.

The tee area should be provided with yardage markers to designate the 0 point for measuring the yardage corresponding to that on the score card. If your course has not been measured or rated, contact your state golf association. The golfer appreciates knowing the point at which each yardage is measured and having the confidence that the yardage is correct.

The *teeing ground* must be designated by some type of markers. These markers should not be placed haphazardly but perpendicular to the line of play and a minimum of 15' apart. The markers should be moved regularly to change the play (distance and line) of the hole, control the traffic, and prevent excessive wear in favorite areas. When placing the markers, keep them above the turf to prevent smothering and yellowing. Remember the rules of golf, the golfer is allowed to tee the ball two (2) club lengths behind the markers. For this reason, markers cannot be placed closer than two (2) club lengths from the rear of the tee. Placing the markers off the sides of the teeing ground to facilitate mowing is a *no no*.

The area around the tee ought to be checked daily for loose trash, clean ball washers and towels, proper water and

soap. Ball washers, trash receptacles, tee markers and benches should be repaired and painted when necessary. The condition of your tees will have a definite effect on the attitude of the golfer and his enjoyment of the game.

2. Fairways

Most superintendents or their membership have their own ideas about how the fairways should be mowed. This may go all the way from "wall to wall" down to "U.S. Open" width. Some may mow from the tee and others start at 150 yards from the tee. If you maintain an intermediate and primary rough or just a primary rough, you must provide definition between this rough and fairway. This definition requires at least 1" difference in the heights of cut. Anything less is a waste of time.

Fairways should be mowed as low as possible (depending on the type of turf) without scalping to provide good ball contact between the clubface and the soil. It is the opinion of most (including the USGA, of late) that contouring of fairways presents a more natural and pleasing playing ground. Contours should follow ground lines when possible, swinging down from hills and mounts, widening for the high handicap player and narrowing for the better player. Contours look best when they swing inside of fairway bunkers and follow the lines of the bunkers. Holding the line of the fairway approximately six feet (6') seems to give the collar of rough around the bunkers a balanced look. The same holds true for swinging 6' inside green bunkers to tie into the green collar.

3. Roughs

For those of use who prefer rough, we must decide if we want just the primary or want to add an intermediate rough between the fairway and primary. We must understand that each additional height of cut adds to the difficulty of the course. For example, a fairway mowed at $\frac{1}{2}$ " requires a minimum $1\frac{1}{2}$ " intermediate rough and a $2\frac{1}{2}$ " primary rough if we are to achieve any degree of definition. Will your club tolerate this type of penalty? By eliminating the intermediate rough, we can lower the primary rough to $1\frac{1}{2}$ " minimum. This would provide some penalty but allow the members to locate an errant shot without too much difficulty. Whichever method you choose, be consistent. Do not create rough that you cannot easily maintain at the desired height.

4. Bunkers

Most of us feel that the golf course superintendent is

(Continued on Page 17)



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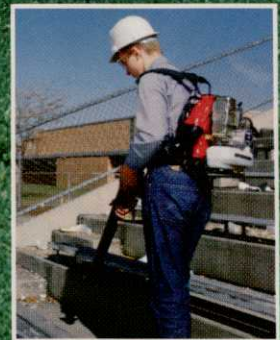
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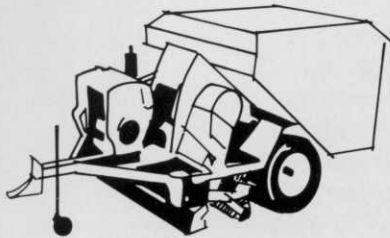
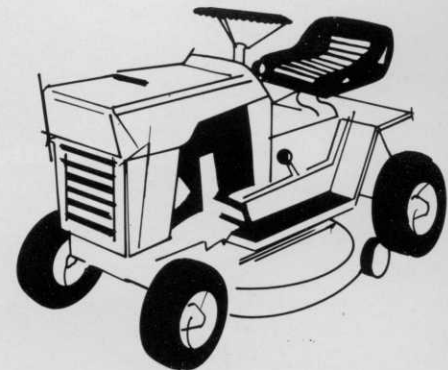
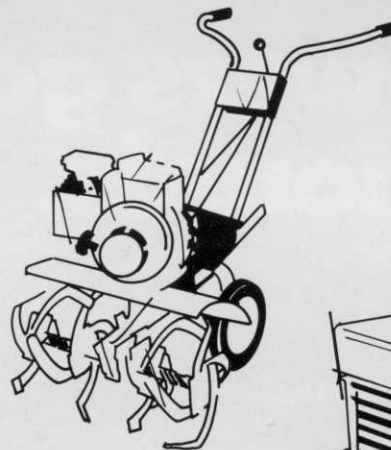
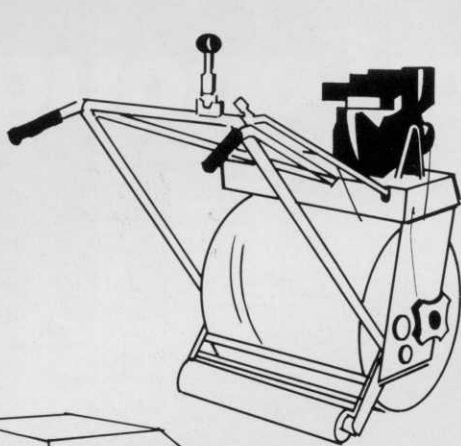
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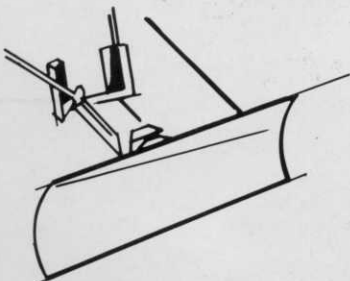
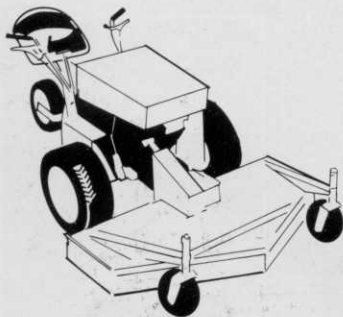
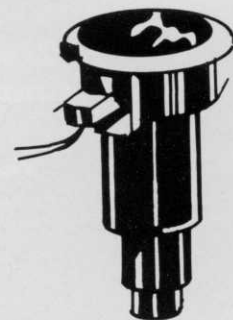


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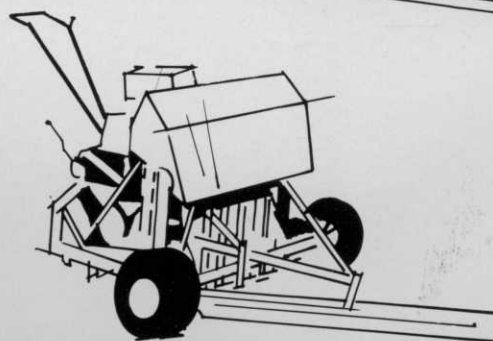
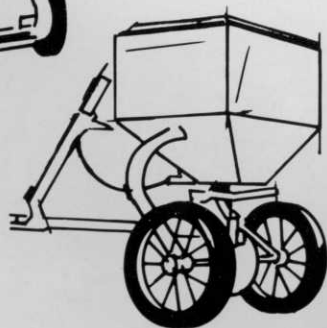
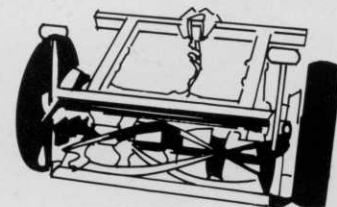
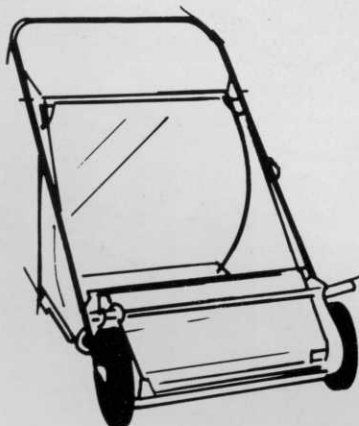
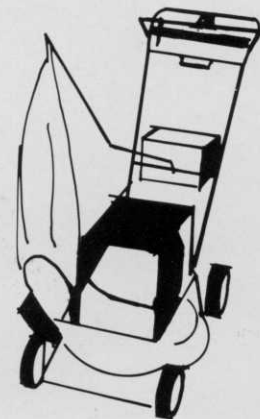
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best known by the greens he keeps. I measure his knowledge of superintendency by the way he maintains his bunkers as well as greens. How often we see bunkers raked just perfect and the sand pulled out onto the turf. Obviously someone does not understand the purpose of the bunker. We can define most hazards with stakes or lines but the boundary of a sand bunker is the sand itself. Who is to know the limits of the hazard if the sand spills out onto the turf. The superintendent should see that the persons responsible for the bunker maintenance understand these details.

How often we see slopes around bunkers devoid of turf. Mowed to fairway height with no way to survive the stress of drought and traffic. Experience has shown that golfers will not traverse a rough when they can travel in the fairway. Keeping a band of rough around the bunker serves two purposes; (1) provides a healthier turf able to withstand the droughty conditions of a slope, and (2) provides a barrier to keep the slightly miss hit shot from rolling into the bunker.

Edging of bunkers is a necessary evil if there ever was one. Done properly it is an operation that gives the bunker a soft, natural look. Some edging leaves a bunker looking like a scar on the landscape that doesn't want to heal. Turf that lays over the edge hides the soil and provides a canopy for water falling into the bunker. In addition, it helps keep the soil from mixing with the sand. Keep the turf clipped and runners out of the sand but do not butcher the edges.

To complete the grooming of your bunkers, be certain that rakes are available and in good condition. The number of rakes provided will depend on the size of the bunker. Remove all bent or broken rakes.

5. Collars

One thing that stands out most on a televised golf tournament is the way the fairways tie into the collars. It provides a blending of fairway and green. The USGA recommends a collar mowed at fairway height and from 30-36 inches wide. We often see collars that are the width of a triplex greens mower. This width gets the job done quicker and cheaper but it leaves the green looking as though someone has allowed it to grow in too much. The collar should complement the green, not dwarf it. The little extra time and manpower spent mowing at 36 inches gives the green a well-groomed look.

6. Greens

So much has been written about this area of the golf course that it is difficult to choose something new and informative. This writer shall only dwell on what he thinks a well-maintained green should look like.

The most important feature of the putting surface should be its ability to keep the ball rolling. On a perfect putting surface, it appears the ball (when properly stroked on a level area) will never stop rolling. When you see a putt come to an abrupt stop, it is a poor quality putting surface. Friction is the culprit. The heavier and rougher the surface is, the more friction you have. The secret seems to be keeping the leaf blades thin (juvenility) and maintaining a minimum of thatch between the young blades and the soil.

Color should be secondary as color is the result of nutrition and growth. Controlling thatch means controlling clipping yield which means controlling fertilization. The growth rate

on the green should be such that the turf is able to recover from wear and maintain a density that will resist traffic, nothing more.

Ball marks are a constant source of aggravation with the golfer. He makes the marks, never repairs them, and constantly complains about their presence. Many superintendents have long since quit trying to educate the golfer and have gone to repairing or completely ignoring the darn things. We should continually strive to educate the golfer to repair his ball marks and instruct our crew members to take a minute to repair several when they are on a green. Scheduled topdressings will mask these for a short time.

Change cups regularly (daily during the playing season) to give the golfer a new look at the hole each time it is played. This also distributes the traffic over the entire green, lessening the wear on the turf.

Cup cutting is an operation that should be assigned to the best crew members you have. Good training and constant vigilance are necessary to keep the complaints to a *minimum* as there is no way to satisfy all the golfers on this one. We can only hope to understand some basic rules and insist that they be followed:

- a. Keep the cup a minimum of 12' from the edge of the putting surface.
- b. Maintain a minimum of 3" (radius) of *reasonably level* area around the cup.
- c. Cut the cup plumb regardless of any slope.
- d. Clean and sink the cup exactly 1" from the surface. (This prevents a ball from rimming out and provides a degree of stability to the soil around the cup.)
- e. Brush any loose soil from the cup area.
- f. Replace the plug flush in the old hole and water thoroughly to prevent wilting.
- g. Replace worn cups and flagsticks, when necessary, to keep the flagstick plumb and snug in the cup. Replace chipped cups.
- h. Check the ties on the flag and swivel. Replace frayed flags.
- i. Plug any scarred areas that will not recover within a few days.

7. Trees and Shrubs

Nothing detracts from the aesthetics of a course more than dead trees, shrubs, and stumps. Many new courses neglect the selective clearing phase of construction. In time, the barked and buried trees will die and have to be removed but in the meantime, they create an eyesore. Stumps not only detract from the appearance of your course but add to the maintenance problems. Weeds grow around them and they interfere with the mowing equipment. Remove these trees and stumps on a continuing basis.

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Trim low-hanging branches in the primary rough to eliminate eye injuries. This also makes it easier to maneuver the mowing equipment. Fallen limbs should be collected regularly and removed from the course.

Planting trees and shrubs to enhance the landscape is a necessary part of improving the course. However, once the planting is complete, these plants must be cared for on a regular schedule. Putting out a couple thousand dollars worth of plants and failing to spend \$30-\$40 per week to keep them watered makes no sense.

Many flowering trees and shrubs produce numerous suckers which should be trimmed regularly to produce a well-shaped plant. Early pruning of young trees will provide a balanced mature plant that complements the landscape. Young trees and shrubs should be mulched. Shrub beds need to be weeded and mulched, as needed.

8. Hazards

Lakes, streams, ditches and other hazards should be maintained to the point that they present a natural appearance. Determine the extent of mowing or trimming desired and be consistent. Nothing detracts from a lake more than overgrown edges. Maintain a band of rough along streams and ditches as well as the lakes. When possible, lakes should be kept free of algae and aquatic weeds. The use of a pond dye during special events adds a lot to the looks of your lakes and water hazards.

10. Employee attitude

The most important ingredient for success in keeping your course well-groomed is your maintenance crew. Their attitude should be one of pride and motivation. Encourage them to perform each task with pride and understanding of what effect they are trying to create. Provide them with good equipment and insist that they understand its capabilities and limitations. See that they operate and maintain this equipment properly and you will have a more productive crew and a better looking course.

Knowledge of the game and its rules will allow you to maintain your course for the benefit of the golfer, not just to see how much green grass you can harvest. One of the few benefits of being a golf course superintendent is being able to look over your shoulder and see that you and your staff have provided the golfers with the best playing conditions possible.

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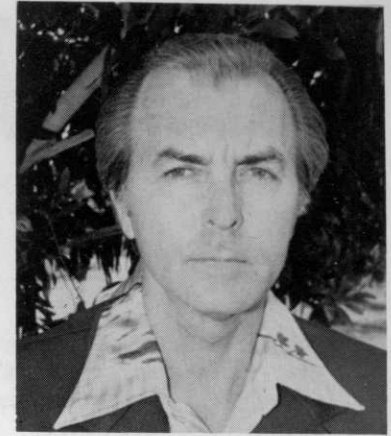
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AN INTERVIEW WITH KARL LITTEN

By HARRY McCARTHA



After years with a noted golf course architectural firm, Karl Litten has formed his own golf course design team located in Boca Raton. He has been closely involved with over 60 golf course projects, lending his talents to design, plans, specifications and field supervision.

"Karl, do you plan any particular design innovations that other architects are overlooking?"

"Having a civil engineering background, I have always been a strong advocate of proper drainage design and field implementation. Probably the most innovative design effort that I hope to implement is a total mechanized maintained golf course.

With yearly maintenance budgets flirting at \$300,000 a year and with constant inflation, hand labor will soon be prohibitive. Traps must be designed for the turning radius of the trap rakes; rolls must be graded gentle around traps to eliminate the fly-mows. Greens must be designed slightly oversized to accommodate the tri-plex green mowers and allow for a border wide enough for turning between the putting surface and the traps. I hope to give a lot more consideration to green and trap drainage than is generally accepted. The placement of landscape material is of the utmost importance in eliminating hand labor. All of the above and more can be accomplished without sacrificing the aesthetic or the playability of the golf course.

(Continued on Page 22)

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Dump Construction: Single wall.

Headlights: Single.

Seating: Single seat for one passenger with back rest and hip restraint.

Price: Virtually the same.

