one man, ranging from scientific to financial, to personnel, to engineering, to public relations, and, finally, to knowledge of golf and overall club operations. It is true that no one can expect a given individual to be fully knowledgeable in all of these areas, any more than a club house manager can be the best of chef, accountant, and public relations man. Knowledge is one thing, but ability to think is another, and anyone knows a golf course superintendent has to think.

Anyone who can think intelligently can manage, and it's about time we began to look upon management, not as a governing body, but as a goal to be reached, and the sooner the better for both ourselves and the clubs we serve.

There are ways that we can guarantee ourselves that we shall forever be Charlie Browns.

We can take each day as it comes. Why plan ahead, if you're not even sure who's going to show for work in the morning.

We can make up an excellent defense after our "supervision" fails. A green chairman once told me, "Don't scream 'til you're hurt." I didn't for a while until I remembered what people do when they fall off tall buildings.

We can accept our established positions and not fill a management void in other areas of the club operation. If a 3-inch water line in the club house bursts, what business is it of yours, even though that's small stuff to you and your men.

We can treat communications as something for television and the club manager—as long as you know what you are doing, why should they?

We can continue to be the only people in the world to own a one-sided coin—there ain't no way someone else could be right when I made a decision the other way—like closing the course.

Friends, let Charlie supervise. Perhaps that's the heart of our schizoid problem anyway. We are true managers playing a role that we have been cast in by others—called superintendents.

The Good and Not so Good of Triplex Putting Green Mowers

By William H. Bengeyfield, Western Director, USGA Green Section

he modern triplex putting green mower has produced a not so minor revolution in putting green care. As in all revolutions, the determination of whether it is good or bad rests largely with who you are and how you are affected by it.

Triplex mowers, although not new, are still in their infancy, and today's models will be tomorrow's curiosities. But for the moment, many hold doubts as to their present value if judged strictly by the results they produce. The problems of grain, wear and compaction are very real, especially if they are continually used on bentgrass greens in all kinds of weather. On the other hand, if you are the fellow paying the labor bill (which comprises 70 per cent or more of the budget), the triplex green mower must be considered a godsend!

Some years ago, agricultural economists at Purdue University undertook a study to determine how much a farmer could afford to invest in equipment to save his labor time. If labor is worth \$2 an hour and if golf course chores are similar to farm chores, the tabulation would look something like this:

Machine Saves	Farmer Can Afford
60 minutes per day	\$4,500.00
50 minutes per day	3,800.00
40 minutes per day	3,000.00
30 minutes per day	2,200.00
20 minutes per day	1,400.00
10 minutes per day	600.00

No wonder triplex putting green units have literally saved the day for many municipal as well as private golf courses. They are here to stay and the equipment is going to get better with time.

As increased labor costs have forced the use of more sophisticated machinery, the trend is undeniably toward more versatile equipment; i.e., being able to do more than one job. Triplex mowers already have interchangeable units for vertical mowing, tee mowing, etc. Fairway sweepers now have dethatching devices, etc. I'm

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Joe Sirianni, Supt. mowing the Olympic Club's 16th green with a Hahn West Point.

waiting for the day when the triplex putting green mower will vacuum grass clippings (and *Poa annua* seed) while mowing greens, and then discharge the load automatically on the way to the next green. The mower could also be rigged to apply small amounts of fertilizer, fungicide or insecticide (wet or dry) during the mowing operation. What a labor saver it will be!

If progress in equipment during the past 10 years is any indication of the coming 10, we are going to see more and more heavy machines used on greens. Early greenkeepers would have nightmares if they knew what we are doing and planning to do. Heavier equipment means more compaction, more wear, more grain, more thatch, more headaches for the superintendent devoted to quality golfing turf. And all of this is done in the name of "saving labor costs."

Resistence to this trend is already evident among some clubs and superintendents. Quality playing conditions and appearance is more important to the game than minimum budgets.

They hasten to point out that they, too, can mow 18 greens in less than three hours time with their sectionmen using the smaller walking mowers. And the sectionmen also fix ball marks on greens, touch up bunkers and overall, provide a finer, well-groomed golf course. They believe the time saved by triplex units is not all "saving."

The controversy will continue for there are good and not so good points on both sides. Perhaps with time there will be a blending of views, a compromise. Manhours are the difference. But this difference may be found in using the triplex mower on tees and, on Saturday and Sundays, on the greens when overtime must be employed. In this way, labor costs can be held down and, at the same time, quality turf preserved.

The following are comments of superintendents concerning the use of triplex putting green mowers. They are based on a variety of conditions and duration of use.

They Save Time

By Joe Sirianni, Superintendent, Olympic Club, San Francisco, California

have had two triplex putting green mowers for the past three months, and so far, they have been very good. They are a great time saver and I am very happy with the job they have done for us to this date.

At the Olympic Club, we have 36 holes, and the new machines are used on both courses. Where it used to take three men on each course from 3½ to 4 hours to cut six greens apiece, we can now cut the entire 36 holes in four hours with only two men! This gives me a chance to use the other four greensmen four hours every morning for jobs like working on their bunkers, cleaning up their sections, or for whatever needs to be done. In effect, the triplex putting green mowers have given me four additional

men to do the chores that, in the past, often went undone.

Our greens are largely Poa annua, average 5,200 square feet, and they are mowed five days a week during the cutting season; Tuesdays, Wednesdays, Thursdays, Saturdays and Sundays. We are fully unionized and right now: my greensmen receive \$3.95 an hour or \$31.60 a day. This comes to \$684 a month for an 8-hour workday and 40-hours a week. From this you can see that overtime costs can be staggering. For our last fiscal year, overtime alone amounted to over \$18,000, and it was basically for cutting greens on Saturdays and Sundays. Something had to be done about it. and the triplex putting green mower was the answer. Where we once used six men on overtime, we now use two men, and they both come in on Saturdays and Sundays.

I am frequently asked about the 'quality of cut' and the compaction from the use of triplex mowers. So far, I have found the quality of cut very good, but again, I have only used the mowers for the last three months. If there is a

compaction problem, it hasn't shown as yet, and I am on the constant lookout for it.

As to the development of more grain on greens, I do think we will be doing more vertical mowing in the future. However, with the vertical mower attachments available for triplex putting green mowers, this does not present any major problem. In fact, more frequent vertical mowing may actually produce even better putting surfaces than in the past.

To sum up, I am very pleased with our triplex putting green mowers and see no reason why we would ever return to the use of the smaller units. Of course, if we get a lot of heavy rain and the greens become very wet, I'm a little reluctant to use the heavier triplex units. So we still occasionally use the hand mowers or smaller machines. We are not throwing them away. Nevertheless, the triplex mowers are certainly a time saver and have done a very good job for us. Any green superintendent would be wise to at least look and try these new machines.

Watch for Thatch

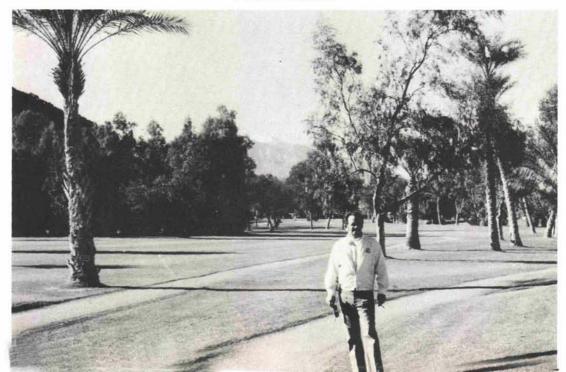
By Harvey Hardin, Superintendent, Indian Wells Country Club, Palm Desert, California

Indian Wells Country Club was fortunate in having the use of the first pilot model triplex green mower in early 1968. This was the mower first shown at the GCSAA International Turfgrass Conference held in San Francisco earlier that year. It received a full workout under our conditions as we used it six days a week for ten full months. Since that time, triplex putting

green mowers have been in almost constant use at Indian Wells.

Initially we used a circular mowing pattern on the greens. However, our members preferred the striped appearance of greens and it wasn't very long before we went to this type of mowing pattern. The new triplex mower performed beautifully for the first several months.

Supt. Harvey Hardin has used the Jacobsen triplex for four years at Indian Wells Country Club, Palm Desert, Calif.





The Toro Greensmaster mower reduce man hour mowing requirements.

However, after about three or four months I found it necessary to brush cut because definite signs of grain began to appear. I think after several months of mowing with any triplex mower we are going to have to closely watch the grain and thatch problem. The reason is the 'floating head.' Any cutting unit that 'floats' must gradually raise up more than the solid, fixed head of the older walking mowers.

To correct the condition, we used the walking vertical mowers since the vertical mowing units were not yet available for the triplex riding mower. From my experience, brushing does not do the job of grain and thatch removal as well as a vertical mower.

Another problem we encountered is that of excessive wear on putting green perimeters. Of course this is from 'ringing the greens' with each mowing-six days a week. We have tried 'ringing' greens every other day but you can still see some wear. The only way to correct this is by step-cutting; i.e., alternating from three to two to one mowing unit for the outside circle cut each succeeding day. This seems to even out the compaction and wear problem and helps avoid wheel marks or tracking. During the winter season, we will often have 300 rounds of golf a day on our 27 holes. With temperatures as low as 15°F. at 6:30 in the morning and then up to 85°F. by 10:30 a.m., we must do all we can to reduce excessive putting green wear caused by equipment.

Indian Wells is one of the host clubs each year for the Bob Hope Desert Classic I have

checked with the PGA and it has no objections whatsoever to the use of the triplex greens mower. The PGA wants all four courses in the tournament to use the same height of cut, however. In my operation, I have four triplex putting green mowing units; one I use for tees, two are used for greens and one is available just in case one of the others blows up. In addition, I still have several of the older walking mowers and use them periodically. This seems to help keep down thatch and we are not verti-cutting in front of the members quite so often when this technique is used.

In summary, I think we will all have to learn to live with the triplex putting green mower because of its great labor saving advantage. Personally, if I had my druthers I would be mowing with the old walking mowers. There are simply more maintenance procedures to be accomplished with the triplex units; i.e., more vertical mowing and more brush cutting than in other years when we were using the smaller mowing units. Certainly there is more wear on greens. Nevertheless, I used to use seven men every morning to mow 27 holes, and now I use two mowers and two men! In addition, vertical mowing of greens is easy with the new units that may be used with the triplex machine. Our tees have also been improved with triplex mowing and at a lower cost. Therefore, whether we like the triplex mower or not. I think we are all going to have to use them at some future date and we can be sure they will be continually improved.



The Toro vertical mower.

Quality Lowered

By John Zoller, Superintendent, Eugene Country Club, Eugene, Oregon

Much has been said about the convenience and speed of the triplex putting green mower and these are important considerations in this day of high maintenance costs. I am not sure the story ends here however. In some ways it is another case of our subordinating what is best for the golfer to what is best for the golf course superintendent. This has been done too frequently already.

In our section of the country, I have heard members of some clubs say that suddenly their greens don't seem to putt as good as they used to. They seem to be slower or not as smooth or they have more grain. In most cases, the member is not aware that a change in mowing equipment has been made. I have had experience with only one of the three triplex putting green mowers that are on the market, so I am not qualified to discuss two of them. But here are some of the day-to-day problems we must give attention to with our triplex mowers.

First of all, by the very nature of triplex mowing, it is a must that all three cutting units be matched as to cutting height and balance. This must be checked every day. If a bearing or bushing on a roller shaft has some wear, that means it will not cut at the same height as the other two. Another problem that we must guard against is damage to the putting green hole. It would appear to be an easy thing to straddle the cup with one of the wing units but more often than not, a portion of the hole is run over by one of the tires and the edge of the

hole is broken down. The result? A good putt is unfairly penalized.

The perimeter cut around the green presents another problem that demands attention, particularly greens that have a high percentage of bentgrass. Because this cut can be made in only two different directions, a lot of swirling of the grass seems to develop. It can only be eliminated by vertical mowing and topdressing. We have tried to help this condition by not mowing around the perimeter every time the green is mowed.

In summation, we-at our club-are not sure that we want to sacrifice the quality that we feel we can get with the single unit mowers for the quantity that we get with the triplex mower. The actual savings are not all that great. Undoubtedly, there is a place for the triplex green mower and many golf courses can benefit from the use of it. But at no time have I heard any of our members favor lessening the quality of green maintenance in order to reduce costs. There are many other time and labor-saving pieces of equipment that, to me at least, are a more practical way of reducing costs. For instance, the use of 9 and perhaps even 11-gang fairway mowing units; the power sand trap rake; and even the 3-wheel vehicles for use in spraying and top-dressing greens can substantially contribute to lower costs.

It has been said that a person is recognized by his face not by his feet, and so, too, a golf course is largely recognized by its greens and not by its roughs or fairways.