

# Improving Productivity of Existing Staff

Improving productivity begins by ensuring maintenance efforts meet expectations and align with facility goals. Once standards are set, optimizing efficiency will help you get the most out of a labor budget.

BY PAUL JACOBS AND PATRICK O'BRIEN



*The “Aussie” method of bunker raking can considerably reduce the time spent preparing bunkers because the faces are left smooth and do not require raking.*

As the turf industry becomes more competitive, golf course maintenance budgets are increasingly scrutinized. As a result, many maintenance budgets have experienced some reductions over the past decade. Unfortunately, golfer expectations typically remain the same even as budgets get slimmer, placing superin-

tendents in a difficult position of trying to do more with less. Doing more with less usually means cutting corners, which often results in negative long-term consequences. A more sustainable way to manage budget issues is to analyze current maintenance techniques and look for ways to optimize the productivity of existing staff.

Improving productivity is beneficial to all golf facilities. Those that have had their maintenance budget reduced are fighting to produce the same playing conditions with fewer resources. At the same time, all golf facilities are struggling to find employees who are willing to work labor-intensive jobs at the wages being offered. In this case,



*Spraying equipment that utilizes GPS technology can improve accuracy and decrease product use.*

improving productivity can mean offering better wages to fewer employees and still maintain the same labor budget.

Opportunities to improve productivity can be exciting, but remember that turfgrass management is just that — management. Successful turfgrass management involves simultaneously managing budgets, people, equipment, and turfgrass. The options presented in this article provide some excellent ways to improve productivity, but they may not be the right choices for every facility. To discuss the best techniques to improve productivity at your facility, contact your regional [USGA agronomist](#).

### BEING EFFECTIVE

Improving productivity starts by fully understanding what the maintenance team does on a daily basis. After all, if the maintenance team is not meeting golfer expectations, then it does not matter how efficiently they are working. In order to be productive, golfer expectations must be met.

Meeting expectations may seem simple, but different golf courses have different maintenance goals and objectives. There is no one-size-fits-all maintenance program. While one

course may prioritize pace of play and maximizing annual rounds, another may prioritize course conditioning and aesthetics. Maintenance programs differ widely among courses with different expectations. Developing written [maintenance standards](#) will provide definitive expectations for the maintenance staff.

Once expectations have been clearly defined, managers need to quantify daily tasks to determine where labor resources are being allocated. Staff compensation — i.e., salaries, wages, and benefits — often comprises 55-70 percent of a golf course maintenance budget. Keeping track of where that money is spent will help managers understand how changes to a maintenance program affect the bottom line.<sup>4</sup> If labor is thoroughly and accurately tracked, the costs associated with different maintenance tasks could even be used as a guide for determining expectations based on maintenance costs.

### MAINTENANCE STANDARDS

Maintaining a golf course involves performing many different tasks over an expansive property. With so much area to maintain and so many different tasks to perform, it is critical that labor is focused on meeting golfer expectations and is consistent with established facility goals. Developing written maintenance standards ensures that expectations are clear and helps guide maintenance efforts.

The process of developing objective maintenance standards should include individuals from different departments of the facility, including the superinten-



*Performing maintenance at unconventional times when golfers are not present can improve efficiency, but working in the dark requires proper lighting and extra caution.*



dent, green committee, golf professional, and general manager.<sup>7</sup> Each stakeholder has a different perspective on golf course maintenance, so collaboration is essential to develop maintenance standards that meet the realistic needs of each department.

Maintenance standards should describe the desired level of quality and conditioning for each area on the course and the practices necessary to achieve and maintain each standard.<sup>8</sup> When possible, include objective measurements such as green speed, height of cut, firmness, and the frequency of required maintenance tasks. Objective standards can be routinely measured to monitor performance and communicate results. It is important to remember that maintenance standards may not always be met. On any given day, weather, special events, and various cultural practices may temporarily disrupt certain objectives.

## LABOR TRACKING

Labor is typically the largest line item in a golf course maintenance budget,

so knowing how labor is allocated is extremely valuable. Golf course superintendents track fertilizers, chemicals, sand, water, cleaning supplies, uniforms, and nearly every other item in a maintenance budget. So, why not labor? Some argue that it is too difficult or takes too much time to track how and where labor is used on a golf course. However, new technology that integrates digital job boards with labor-tracking software makes the task much easier.

Superintendents and course officials can use a detailed labor analysis to develop maintenance standards that align with golfer expectations and budgetary constraints. An accurate labor analysis can be used to explain a proposed increase in the maintenance budget, which may be necessary to meet expectations. Additionally, a labor analysis can be used to defend against potential budget reductions or to answer questions about maintenance practices. For instance, a question like “Why can’t our course use walk-behind mowers on the putting greens or hand

rake bunkers like the course down the road?” can be answered easily with a labor analysis.

A detailed labor analysis can be performed in different ways. Digital job boards linked with labor-tracking software are increasing in popularity at maintenance facilities. This system allows managers to post job assignments and notes to the job board remotely. More important, labor-tracking software stores information from digital job boards. The stored information can be used to generate informative reports that identify how much time and money are spent on specific tasks and on different areas of a course.

There are also ways to perform a labor analysis with tools you may already have in your office. Spreadsheet software can be an effective tool to log the hours required to complete daily tasks. This information can be matched with hourly wages to determine the cost of various maintenance tasks. To simplify things further, some facilities require employees to log their



*Simplified mowing patterns can expedite the mowing process, saving time and resources.*



*Golf course accessories such as benches and ball washers are costly to purchase and maintain. Reducing or removing golf course accessories saves money and streamlines maintenance.*

tasks for the day and record the amount of time spent completing each task. It is important to find a system that works best for your facility. Remember, the usefulness of data depends upon the quality of the data collected.

### USGA RESOURCES

To help facilities improve the golfer experience and better manage resources, the USGA has developed USGA Resource Management and specialized Course Consulting Service (CCS) visits incorporating GPS data loggers.

USGA Resource Management is a web-based product that helps golf course superintendents analyze the allocation of resources such as labor, water, and fuel. Facilities can use data from USGA Resource Management to evaluate maintenance in ways that can reduce costs while improving the golfer experience.

A specialized CCS visit uses GPS data loggers to map golfer traffic

patterns. Information from the visit can help golf facilities focus resources on the areas of a course that are most heavily used while reducing unnecessary expenditures on areas that have little or no impact on the golfer experience.

### BEING EFFICIENT

Performing tasks more efficiently is another key step to improve productivity. Optimizing efficiency can mean performing tasks more quickly, reducing downtime, or consuming fewer resources to achieve a desired result. Reducing the amount of time wasted on traveling, waiting, and performing nonessential tasks gives staff more time to spend improving course conditions.

### IMPLEMENT PRODUCTIVE MAINTENANCE METHODS

Some maintenance techniques — e.g., machine bunker raking versus hand raking — are more intricate and time-consuming than others. One

would hope that a more time-consuming technique would yield better results than the alternative method, but that is not always the case. When looking to improve efficiency, it is important to evaluate how each task is performed and whether there is a better way to achieve desired results. Too often tasks are completed a certain way because “that’s how we’ve always done it.” One of these time-saving techniques could be a good way to improve productivity at your facility:

**Bunker Raking:** The “Aussie” method involves raking the bottom of bunkers in a traditional manner while keeping the faces smooth. Less time will be spent raking with this method, and bunker faces usually become firmer, resulting in more golf balls collecting in the bottom of bunkers.

**Mowing Patterns:** Mowing elaborate stripe patterns into turf requires skilled operators and additional time. Simple mowing patterns can save time and resources.



**Cleanup Passes:** Occasionally skipping cleanup passes can save time and reduce wear on the perimeter of putting greens, tees, and fairways.

**String Trimming:** Applying non-selective and preemergence herbicides around immovable objects can reduce the need for string trimming.

**Golf Course Accessories:** Ball washers, benches, trash cans, and other accessories require significant labor hours to set up and maintain. Reducing the number of course accessories will save money and improve maintenance efficiency.

**Plant Growth Regulators:** Applying plant growth regulators to turf can reduce the required frequency of mowing, reduce clippings, and promote a faster, more enjoyable golf experience.

### SCHEDULING TECHNIQUES

Traditionally, maintenance employees arrive in the early morning to prepare the golf course before play begins. Maintenance efficiency significantly

decreases when golfers catch up to the maintenance team. This can occur if play starts too early in the morning or, more typically, when maintenance operations resume after lunch. The following scheduling techniques present more opportunities to improve productivity with existing staff:

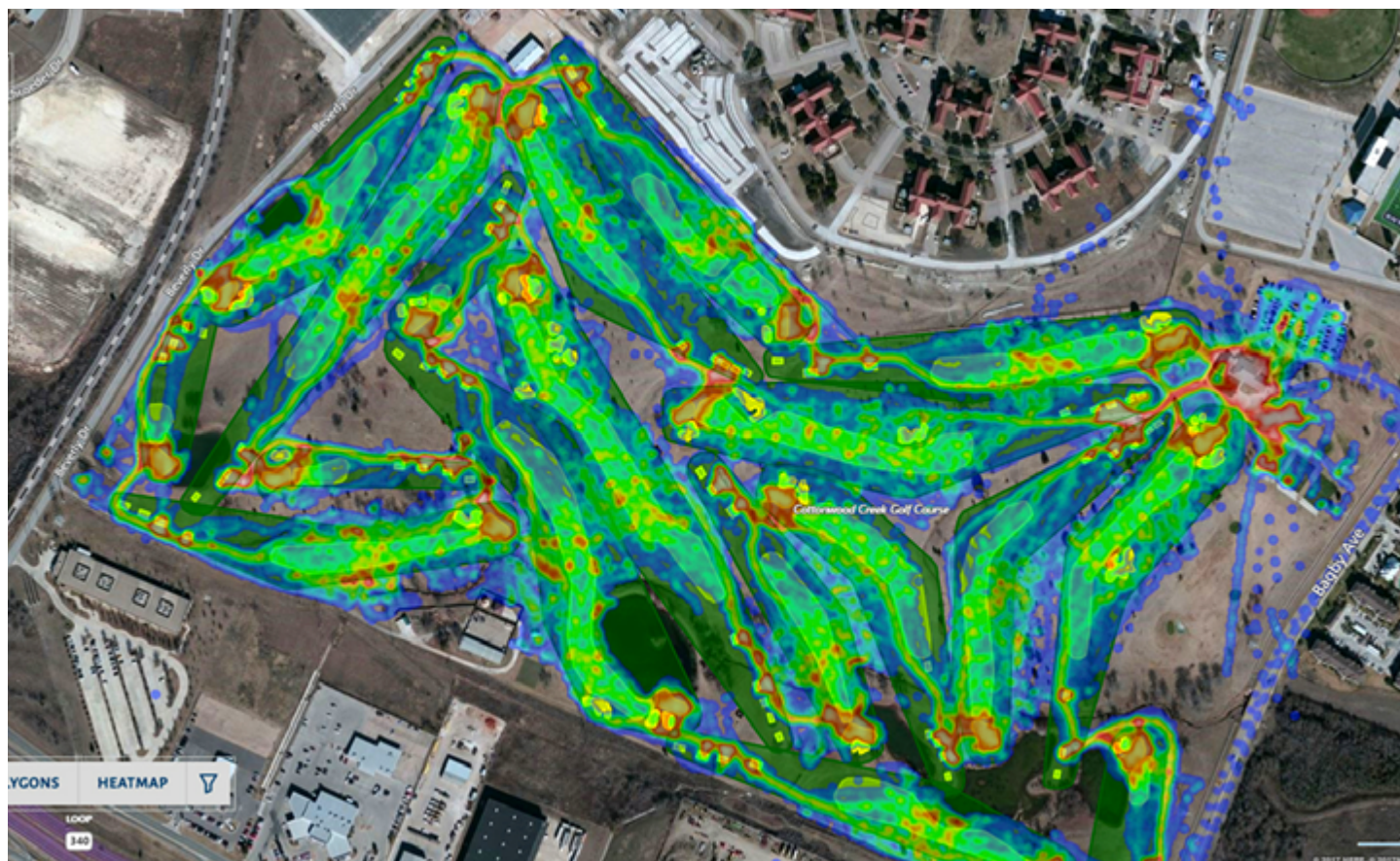
**Maintenance Gaps:** A maintenance gap is a temporary suspension of tee times that creates a predictable gap in play during which maintenance tasks can be performed. By providing an adequate gap in play, maintenance teams can operate at peak efficiency without disrupting golfers.

**Unconventional Start Times:** Performing maintenance tasks overnight or very early in the morning improves efficiency and prevents golfer disruption. Without golfers present, employees do not have to wait for golfers playing through work areas. However, it is important to note that working in the dark requires adequate lighting, extra caution, and diligent management.

**Staggered Schedules:** Employees become less productive as they get fatigued, which can easily happen if they work every day throughout a playing season. Utilizing staggered schedules gives employees one or two full days off per week. With this schedule, the entire staff does not work a traditional Monday-through-Friday workweek, but employees still work full days. For example, a staggered schedule with three teams could be structured as follows: Team A working Sunday through Thursday, Team B working Tuesday through Saturday, and Team C working a traditional Monday-through-Friday schedule. This system ensures adequate staffing on all workdays while also giving employees a day or two off each week.

### TRADITIONAL VERSUS SECTION MAINTENANCE

Section maintenance is an old concept but it warrants a serious discussion due to potential efficiency bene-



Using GPS data loggers to develop a clear understanding of traffic flow on a golf course can help facilities focus maintenance efforts on the most important areas.



fits. Section maintenance assigns employees to perform a variety of tasks on a specific group of holes rather than throughout an entire golf course like traditional maintenance programs. In doing so, section maintenance has the potential to minimize travel time between tasks and can increase accountability. However, whether or not section maintenance can improve efficiency at your course depends upon several factors, including course design, play volume, acreage, golfer expectations, and employee skillset.

## SECTION — PROS

Section maintenance promotes responsibility, accountability, pride, motivation, and several other positive factors among maintenance teams.<sup>6</sup>

Scheduling becomes more flexible because employees are cross-trained to perform a variety of tasks.

Section maintenance improves efficiency by reducing travel time. This can be especially beneficial during periods of heavy play.

When employees are trained and equipped to handle a variety of tasks, there are fewer surprises during the day. For instance, a section worker can quickly identify issues like pest outbreaks, irrigation breaks and leaks, fallen trees and tree limbs, or poor quality of cut due to a mower being out of adjustment.



*Developing clear maintenance standards and communicating them to the maintenance team is a critical part of improving productivity.*

## SECTION — CONS

Section workers require additional training because employees need to be cross-trained on a variety of tasks and may be unsupervised at times.

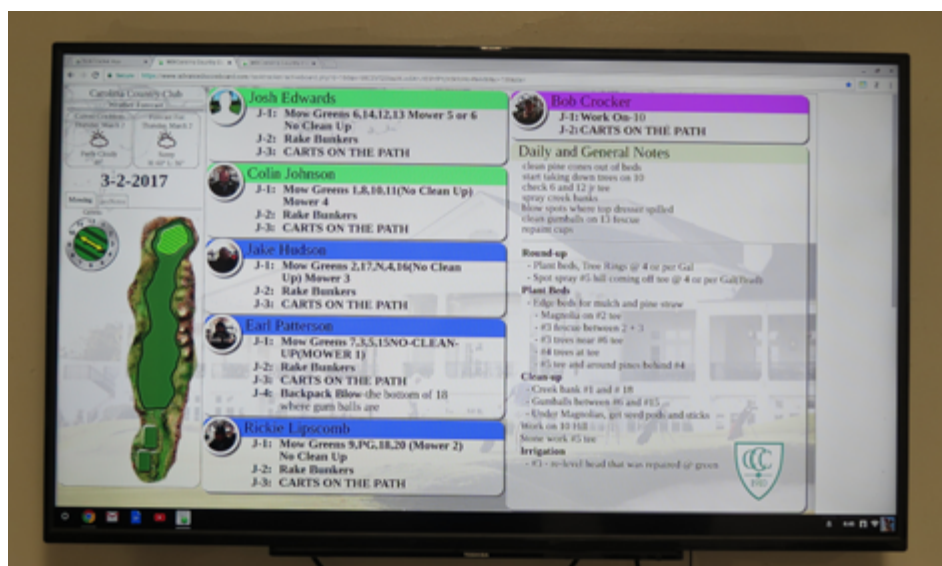
Arranging the sections and scheduling tasks within those sections can be challenging. For example, if one employee is scheduled to roll all of the putting greens after mowing, section staff may need to adjust their schedules to ensure that the putting greens in their section are mowed before the roller arrives. Situations like

this are frequent in a section maintenance system, necessitating additional coordination and communication between managers and staff.

While not desirable, sometimes it is most efficient for one employee to be assigned a section of holes that are played early in a round. If this is the case, starting tee times must be scheduled to allow the staff time to prepare playing surfaces before golfers arrive. Alternatively, the staff in sections receiving early play may need additional assistance during the morning to prepare for golfers.

## TECHNOLOGY

With staff becoming more difficult to hire and retain, [utilizing technology](#) has become increasingly important to meet golfer expectations. [GPS-guided sprayers](#) and robotic putting green mowers help golf facilities improve efficiency, and their popularity is increasing. The initial investment costs of new technology may be a concern, but the return on investment is significant. Often, it is shocking to see how rapidly investments in technology pay for themselves. The article [“Advancing Golf Course Maintenance Equipment With Positioning Technology”](#) provides details of how new technology is being used in the turf industry.<sup>1</sup>



*Digital job boards and labor-tracking software can help superintendents identify how much time and money are spent on specific tasks and areas of a golf course.*



## CONCLUSION

Hiring and retaining labor remains challenging for many golf facilities. Finding ways to improve productivity with existing staff has become a critical component of successful golf course management. Improving productivity begins by creating and communicating maintenance standards to ensure that facility goals are met. Then maintenance teams can work toward optimizing efficiency through training, scheduling, and adjustments to the operational strategy. Ultimately, being effective and efficient will improve productivity, deliver the best possible results, and ease the burden of managing labor challenges.

## REFERENCES

<sup>1</sup>Barden, Addison, and John Daniels. "[Advancing Golf Course Maintenance Equipment With Positioning Technology.](#)" *USGA Green Section Record*, vol. 54, no. 19, Oct. 2016, pp. 1-4.

<sup>2</sup>Batsky, Daniel. "[Plan Your Work, Work Your Plan.](#)" *USGA Green Section Record*, vol. 47, no. 2, Mar./Apr. 2009, pp. 19-21.

<sup>3</sup>Bevard, Darin. "[Keeping Track.](#)" *USGA Green Section Record*, vol. 50, no. 23, Nov. 2012, pp. 1-3.

<sup>4</sup>Brame, Bob. "[Five Mistakes to Avoid When Reducing Maintenance Costs.](#)" *USGA Green Section Record*, vol. 51, no. 10, May 2013, pp. 1-4.

<sup>5</sup>Gilhuly, Larry. "[Section Maintenance — It Could Be Your Pot of Gold!](#)" *USGA Green Section Record*, vol. 29, no. 3, May/June 1991, pp. 1-4.

<sup>6</sup>Gross, Pat. "[A Labor of Love or a Love of Labor?](#)" *USGA Green Section*



*Applying a non-selective herbicide around immovable objects eliminates the need for string trimming.*

*Record*, vol. 48, no. 3, May/June 2010, pp. 24-27.

<sup>7</sup>Gross, Pat. "[When in Doubt, Spec it Out.](#)" *USGA Green Section Record*, vol. 35, no. 2, Mar./Apr. 1997, pp. 1-4.

<sup>8</sup>Lowe, Todd. "[Setting Standards.](#)" *USGA Green Section Record*, vol. 43, no. 5, Sep./Oct. 2005, pp. 1-6.

<sup>9</sup>Moore, Martin. "[Required Maintenance Versus Available Labor.](#)" *USGA Green Section Record*, vol. 26, no. 1, Jan./Feb. 1988, pp. 12-14.

**PAUL JACOBS** is an agronomist in the Northeast Region, and **PATRICK O'BRIEN** is an agronomist in the Southeast Region.

# SUBSCRIBE TO THE USGA GREEN SECTION RECORD

TEXT "GREENSECTION" TO "22828" OR [CLICK HERE](#)

Offering the latest information on golf course management, turfgrass culture, environmental issues, research and economic sustainability.