Efficiency and sports turf management

WHEN YOU THINK OF EFFICIENCY and how you manage your athletic fields, what comes to mind initially? Certainly you would think of saving money and maximizing resources. Even before your budget was reduced over the past year, you and your employer were likely conscious of ways to be more efficient with your labor force and your equipment. It’s likely you also were reviewing your materials budget and use of water as well.

Years ago, as I was finishing up my slow pursuit of a college degree, I worked for a few months as a waiter at a large, busy restaurant. I had good weekend shifts and the money earned was quite useful. After 3 months, I had learned two significant things: I had no desire to ever work in a restaurant again and, more importantly, the value of constantly thinking ahead to get the job done. I stress the same principles for my crew. If you are mobilizing yourself to get home plate done, bring everything you need with you in the cart one time. For instance, bring clay with you that has different degrees of moisture in it, to get the work done more efficiently. You want to have some moist, medium and dry clay on hand to make adjustments for weather conditions. Every extra trip back to the shop may waste five minutes or more, so think ahead.

You know that within your budget as a turf manager, you have a finite number of hours that your staff can work. The people working for you are clearly your most important resource. To get the most out of your staff, understand that skills and personality can vary a great deal. This is critical when giving out work assignments. Some people excel at working on their own. Others tend to need a partner to be comfortable and meet your expectations. As a manager, strive to put your staff into situations where they will succeed. One basic principle from labor sociology concerns triads. Workers in groups of three tend to have more conflict and diminished productivity. Focus on giving work assignments and projects to individuals or pairs to maximize productivity. Remember, when employees are consistently given tasks in which they can succeed, they will be productive and motivated.

In the future, as you get the opportunity to specify and lobby for new equipment, try to convince the decision makers that spending more on capital expenditures can improve efficiency. One season of using a 100-inch wide five-plex instead of a tri-plex reel mower and you will be amazed at the increase in productivity, as well as the improved density in your turf from more frequent mowing. For baseball, look at infield tractors that have quick adaptability. Any machine that allows you to easily change attachments (i.e. nail drag, finish rake, box grader) will be well worth the higher purchase price. Buying a one-dimensional infield tractor saves you a little money, but in the long run it will hinder productivity.

When you prepare your maintenance plan for a given week, think about factors beyond events that will cause you to make adjustments to your schedule. Understanding weather patterns at least two to three days in advance can greatly improve your efficiency. Again, it comes back to thinking ahead. Monitoring the weather accurately can save you money on painting your fields, watering them and on labor. Making adjustments in your mowing schedule around weather can greatly enhance efficiency. Mowing fields a day earlier can be more efficient than doing so two days late. Longer turf means slower mowing and decreased productivity.

What about offseason maintenance of baseball and softball fields? Perhaps your resources are so limited that you are unable to do any work during the fall season on these fields. Anywhere the ground freezes at all, I would be very concerned with postponing maintenance completely until March. Is it more efficient to do some routine maintenance in the fall as time permits, or would you rather leave it all until early spring, when weather may not be your best friend? Remember, no one can give you all the answers. The goal is to get you, your crews and your employer thinking...
about how to be more efficient in your specific situation.

Tarp all of your game mounds! If you remember anything from this article, it’s this: TARP YOUR MOUNDS. Committing resources in your budget to purchase mound tarps, and ensuring they are managed effectively, will greatly improve your efficiency. On a baseball field, the mound is equivalent to the transmission on a car. It is that important, at all levels of play. Simply put, from a baseball perspective, a bad mound equals a bad field. Decent mound tarps are affordable and one person can place them or remove them quite easily. By tarping every day and night, you accomplish two things. First, you keep rain or irrigation off your clay. Second, you retain moisture in your mound when conditions are dry. There are so many good clay products available to us today. The key to all of them is maintaining a consistent moisture level, so your mound is safe and durable.

Once your mounds are on a good program, think about ways to improve your baseball fields even though your budget is being reduced. In high school, when I wasn’t pitching I played right field. Supposedly, an old creek ran under our outfield before it became a sports field. In spite of it being in sunny California, I spent most of March and April in muck out there. Although it was wet, it was safe enough for us. Later in life, I discovered that I was playing on what we call native soil. No big deal, because in baseball as much as 70% of the game is played in the infield. As long as your outfields are safe, don’t lose any sleep if they are not perfect. Focus your resources on the infield. Look at it this way: Imagine you have a complex with five baseball fields, each with 100,000 square feet of turf. The infield turf is just less than 8,000 sq. ft. Of your 500,000 sq. ft. of turf, about 8%, or 40,000 sq. ft., is in the infield.

You are looking for ways to streamline your operations. To give a specific example, consider this scenario. You like to apply granular nitrogen and potassium at equal rates. Perhaps you use a product with a 19-
Facility & Operations

3-19 NPK ratio. To meet your new budget, you must reduce your annual fertilizer budget for the five-field complex by 20%. To do so, you cut back your total N/K output in the five outfield and foul areas (460,000 sq. ft.) from 4lbs. N/K to 3lbs. N/K annually. By doing so, you still have enough room in the budget to apply 4.5lbs. of granular N/K to the infield each year. You meet your budget goal, while increasing the annual N/K on your infields by 12.5%.

As much as time allows, try and focus resources on areas of stress and importance. Goal areas on soccer fields and baseball infields need more management and fertility to withstand the demands of increased traffic. For instance, when I apply granular products to the infield, I sometimes set the spreader to apply the products at half rate, and then apply the product in two directions. To finish I make one extra pass between the mound and home plate. Wear and traffic between the mound and plate leads to turf that sometimes needs a little extra boost of N and K.

How can your annual fertility plan increase efficiency and produce a better field? Consider the role of late fall fertilization and how it impacts your 12-month maintenance cycle. On any cool-season baseball field, you want to go into winter strong, but not overly succulent, with your turf. The importance of a late fall fertilizer application cannot be underestimated. First, late fall potassium will help strengthen your turf going into the harsh winter months. Second, late fall nitrogen will promote increased storage of carbohydrates and benefit root development. By using a blend of N sources (quick, medium, slow) in late fall, the carbohydrates needed to start spring growth will be stored for you. This will mean in early spring, you are in position to begin growing and can feed your turf judiciously. Being able to avoid a heavy spring N application will be more efficient, as you steer clear of surge growth and the increased mowing demands that come with it.

Finally, what about water? It’s not always free and in some places is pretty scarce. You know that your infield dirt needs water to play well and be safe. What is the most efficient way to water dirt? If you only have the resources to water your dirt once a day, try and find time either early in the morning or after dark. You avoid the heat of the day and evaporation by watering early or late, and have a better chance at those times of getting water to move down through the soil profile. At the STMA Conference, you can see new products and talk to irrigation experts. By investing in a trip to the conference and learning about new technology such as Evapotranspiration monitoring, your water efficiency will improve. In conclusion, think ahead, plan intelligently . . . and tarp your mounds.

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