STMA CONFERENCE ATTENDANCE RETURN ON INVESTMENT (ROI): A CASE STUDY

Intuitively, we understand that continuing education and training provides benefits to employees and to employers. Rarely is it quantified to show the financial return and its impact to a facilities' bottom line.

In today's economy, education and training dollars are disappearing, and employers are challenged to make certain that they are receiving premium value from the dollars invested in continuing education. To help an employer assess the financial benefits that their facility will receive by sending their sports field manager to the STMA Annual Conference and Exhibition, a case study of a typical attendee's consumption of education during the Conference is provided. The case study includes quantifying the achieved benefits to determine the ROI of attending the STMA conference.

ROI analysis allows decision makers to determine the financial return from training by comparing net program benefits—benefits minus costs—to costs. ROI is calculated by taking the net benefits of training, dividing by training/education costs, and then multiplying the result by 100. ROI is always expressed as a percentage.

ROI Formula

$$\frac{\textit{Net Program Benefits - Costs}}{\textit{Program Costs}} \textit{ x 100 = ROI}$$

For any ROI calculations, the higher the percentage, the more desirable the program. For example, if the ROI percentage is 25, then for every $1 in cost there will be a return of $1 to cover the costs and an additional 25 cents over and above the costs of the program. This is said to have a 25 percent Return on Investment.

SportsTurf MANAGERS ASSOCIATION
Experts on the Field, Partners in the Game.
www.stma.org

STMA CONFERENCE EDUCATION SESSIONS

stma Institute OF SPORTSFIELD MANAGEMENT

SportsTurf MANAGERS ASSOCIATION
Experts on the Field, Partners in the Game.
www.stma.org

Sessions were selected from previous and projected conference programs to demonstrate the estimated cost savings that can be obtained by attending STMA's annual conference. The information presented should be used as a guide and should not replace professional advice or consultation.

INCREASING REVENUE FOR A FACILITY

Improved planning and communication about additional field usage can increase revenue for a facility. At Red Bull Arena, a 30% increase in field usage over 3 seasons led to a 250% increase in revenue for the team.

Being Positive about Increased Field Usage - Zachary Holm, CSFM - 2020

Forecasting and tracking weather accurately to prevent a game rainout by pulling the tarp at the correct time will prevent loss of revenue from ticket gate from fans, monies from advertisers and income from concessions. Estimated savings can vary from $100 to $1,000,000 or more depending on the scale and scope of the facility and the games being played.

Do I Pull the Tarp? Having the Tools and a Plan for Making Game-Time Weather Decisions - Brad Jakubowski and Matt Neri - 2020

STMA CONFERENCE EDUCATION SESSIONS

stma Institute OF SPORTSFIELD MANAGEMENT

SportsTurf MANAGERS ASSOCIATION

Experts on the Field, Partners in the Game.

www.stma.org

USING THE WEATHER TO YOUR ADVANTAGE

Understanding rain and weather patterns can eliminate or minimize wasted broadleaf and grassy weed herbicide applications. Eliminating unnecessary repeat applications can result in the following:

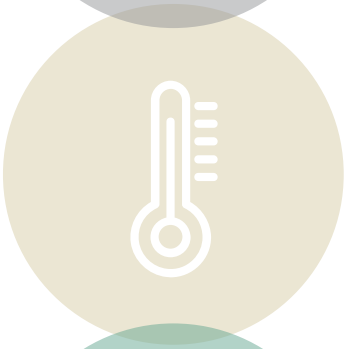
- Poa annua Management: 10 acres at 6 ounces per acre of Tenacity herbicide - 4 applications per year at $775 per gallon saves $1550.
- Post-emergence Broadleaf Herbicide: 4 Speed XT at 64 ounces per acre - 10 acres at $120 per gallon saves $600 per application.
- Post-emergence Crabgrass Herbicide: Drive XLR8 at 64 ounces per acre - 10 acres at $150 per gallon saves $750 per application.

With each herbicide example, a minimum of 5 additional hours of labor at $20.00 per hour is created which, if avoided would create an additional $100 savings.

A Good Day to Spray? Making Sound Weather-Based IPM Decisions - Brad Jakubowski - 2021

Identifying inversions or inappropriate wind speed and direction can avoid pesticide drift damage to non-target plants. Avoiding replacement costs, additional labor expenses, and loss of credibility as a field manager can save $1000 per occurrence.

A Good Day to Spray? Making Sound Weather-Based IPM Decisions - Brad Jakubowski - 2021



By understanding weather conditions, such as dew point, temperature, or humidity, and adjusting maintenance practices can reduce disease occurrence and save on fungicide applications. A single application of Banner Maxx at 44 ounces per acre at $240 per gallon saves $800.

A Good Day to Spray? Making Sound Weather-Based IPM Decisions - Brad Jakubowski - 2021

Forecasting weather accurately for correct timing of aerification to prevent delays can save $1200.

Making Better Weather-Based Management Decisions - Brad Jakubowski - 2019

Early morning dew, air temperatures, and frost delays can lead to labor downtime. Readjusting seasonal employee schedules during March, April, September, October, and November can result in money saved. If wages are $12 per hour with 4 hours saved each week for 16 weeks, estimated savings are $768 per person.

Making Better Weather-Based Management Decisions - Brad Jakubowski - 2019

STMA CONFERENCE EDUCATION SESSIONS

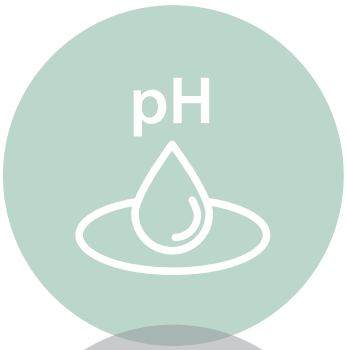
stma Institute OF SPORTSFIELD MANAGEMENT

SportsTurf MANAGERS ASSOCIATION

Experts on the Field, Partners in the Game.

www.stma.org

UNDERSTANDING YOUR ATHLETIC FIELD ROOTZONE

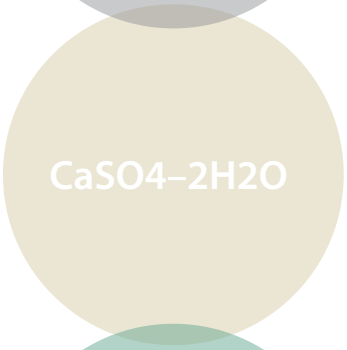


Properly managing pH results in thicker, denser turfgrass, which is the first defense against weed invasion. Optimizing soil pH and turfgrass density can save $50 to over $200 per acre due to fewer post-emergence weed control applications depending on the herbicides used.

Managing Soil pH, CEC, Liming Requirement and Soil Organic Matter - Barry Stewart, Ph.D. - 2021

A consequence of suboptimal soil pH is slow break down of organic matter and excessive thatch accumulation. Addition of ag-lime can improve soil pH, thereby reducing thatch buildup and lowering the frequency of aeration, vertical mowing and topdressing. For an 80,000 square foot field, lime would cost approximately $1000. Considering a cost of $0.10 per square foot for aerifying and topdressing would result in a savings of $8000.

Managing Soil pH, CEC, Liming Requirement and Soil Organic Matter - Barry Stewart, Ph.D. - 2021



Gypsum is often sold as a soil conditioner that aids in flocculation. These applications usually are not needed as most well managed soils contain adequate amounts of calcium and calcium deficiencies in turfgrass are very rare. Bagged gypsum may cost as much as $50 per bag. At a low rate of 5 pounds per 1000 square feet, a sports complex with 10 fields of 80,000 square feet each would need 4,000 pounds or 80 bags of gypsum. Knowing that gypsum is rarely needed would save $4,000.

Managing Soil pH, CEC, Liming Requirement and Soil Organic Matter - Barry Stewart, Ph.D. - 2021

Developing a topdressing program can greatly improve a field's traffic tolerance and playability in all weather conditions. An incorrect program can result in the destruction of the playing surface and rootzone. An inconsistent topdressing program can develop layers in the rootzone and cost between $300,000 to $700,000 to correct by rebuilding and resodding.

Development of a Topdressing Program for Athletic Field Managers - Nick Christians, Ph.D., Adam Thoms, Ph.D. - 2019

STMA CONFERENCE EDUCATION SESSIONS

stma Institute OF SPORTSFIELD MANAGEMENT

SportsTurf MANAGERS ASSOCIATION
Experts on the Field, Partners in the Game.
www.stma.org

IMPROVING FIELD MAINTENANCE PRACTICES

Soil testing can help determine the nutrients needed by turfgrass plants and the amount to apply to maintain the optimum range of availability. Typically, 15% of the fertilizer budget can be saved by only applying the nutrients that are necessary.

Plant and Soil Interactions - Nick Christians, Ph.D., Adam Thoms, Ph.D. - 2019

Following irrigation Best Management Practices (BMPs) results in a reduction, on average, of half or more of the irrigation water typically applied. In one case study from a facility in Utah, water was reduced by 48%, with a cost savings of $23,564 annually. In another case study in California, water was reduced by 36% with a cost savings of $102,202.

More Pop per Drop: Smart Irrigation - Bryan Hopkins, Ph.D. - 2020

Reducing total irrigation saves on water costs, but also labor and wear and tear of the irrigation system. These cost savings were estimated to be $4,560 at a Utah facility and $24,129 for an Arizona facility.

More Pop per Drop: Smart Irrigation - Bryan Hopkins, Ph.D. - 2020

Following irrigation BMPs has a positive interaction with plant health (nutrition, disease, etc.) and healthier, deeper root systems, resulting in making grass more resilient to drought, heat, nutritional, and pest stresses and providing savings in fertilizer, fungicides, and the labor involved when the grass has to be nursed back to health or replaced. In a case study, cost savings were estimated to be $1,203 and $23,011 for Utah and Arizona facilities, respectively.

More Pop per Drop: Smart Irrigation - Bryan Hopkins, Ph.D. - 2020

Use of "Smart" irrigation controllers is increasingly affordable, with their proper use saving water, labor, fertilizer, and pesticides, as well as giving the facility a public relations boost. Investment costs to install Smart Controllers at a Utah facility was $2,023 and $30,854 for a California facility. Costs were recouped in actual water savings within two years for the Utah facility and within three months for the California facility.

More Pop per Drop: Smart Irrigation - Bryan Hopkins, Ph.D. - 2020

IMPROVING FIELD MAINTENANCE PRACTICES (CONTINUED)

When seeding athletic fields using poor establishment practices, end users may experience partial seeding failure resulting in 50% turfgrass cover. The need to re-seed may require 50% of the initial seeding rate. This could lead to additional costs of $350 per acre in seed plus labor and field down time (which is often the greatest loss) for a tall fescue + Kentucky bluegrass mixture (approximately $100 per 50-pound bag). For new establishment, this mixture is recommended to be seeded at 350 pounds per acre.

Establishing Cool-Season Turfgrasses from Seed: What went right and wrong? - Brad Park - 2021

Seeding irregularities that result in 25% turfgrass cover may require re-seeding at 75% of the initial seeding rate. This can cost managers an additional $256 per acre in seed, labor, and field down time for elite Kentucky bluegrass blends (approximately $3.92 per pound; seeding rate at 2 pounds per 1000 square feet).

Establishing Cool-Season Turfgrasses from Seed: What went right and wrong? - Brad Park - 2021

CASE STUDY

stma Institute OF SPORTSFIELD MANAGEMENT

SportsTurf MANAGERS ASSOCIATION
Experts on the Field, Partners in the Game.
www.stma.org

Attendees can select from over 40 education sessions to learn various best management practices for their fields and facilities. The case study provides a snapshot of sessions a sports field manager may attend and the cost savings that could be applied post conference to improve operations.

This model assumes that the sports field manager has purchased a full-conference registration. The sessions noted below were randomly selected from the scenarios above. These scenarios assume an average salary for the Sports Field Manager of $69,000 = $33.17 per hour. Though savings and practices vary by maintenance program, this serves as a representation of what your experience could look like and may help convince your employer to send you to the conference. STMA provides a Trip Report you can use to document actionable ideas you plan to implement at your facility and show a tangible return on investment (ROI) by attending.

ESTIMATED SAVINGS BY ATTENDING EDUCATION SESSIONS AT THE STMA CONFERENCE

Do I Pull the Tarp? Having the Tools and a Plan for Making Game-Time Weather Decisions - Brad Jakubowski and Matt Neri
You learned to forecast and track weather accurately and prevented a game rainout saving you about $100,000 (this is an example for the purpose of this case study - the true amount will depend on the scale and scope of the facility and games being played).

Establishing Cool-Season Turfgrasses from Seed: What went right and wrong? - Brad Park
Learning to establish turfgrass seed correctly can save $350 per acre in seed plus labor and field downtime.

A Good Day to Spray? Making Sound Weather-Based IPM Decisions - Brad Jakubowski
By correctly interpreting rain and weather patterns, you did not need to make repeat applications of broadleaf and grassy weed herbicides. This saved you $3500 in herbicides and labor.

Managing Soil pH, CEC, Liming Requirement and Soil Organic Matter - Barry Stewart, Ph.D.
Learning about the effects of suboptimal soil pH and the importance of lime applications helped you reduce the frequency of aeration, vertical mowing and topdressing saving about $7000.

More Pop per Drop: Smart Irrigation - Bryan Hopkins, Ph.D.
Understanding and implementing irrigation Best Management Practices allowed you to reduce water usage by 48% and saved $23,564 annually.

Total Estimated Savings: $134,414

ESTIMATED COSTS TO ATTEND THE STMA CONFERENCE – PALM SPRINGS 2021

Complete conference package - $375
Includes meals

Shared ground transportation - $50
Uber, $25 each way

Misc. Meals - $50
Tuesday lunch and travel days

Tips - $20

Hotel 3 nights - $567 plus tax
Single room at $189 per night plus 16.5-16.95% tax

Air transportation - $350

Lost Production Time - $1061.44
4 days @ $33.17 per hour

Total Spent: $2473.44

CASE STUDY (CONTINUED)

stma Institute OF SPORTSFIELD MANAGEMENT

SportsTurf MANAGERS ASSOCIATION

Experts on the Field, Partners in the Game.

www.stma.org

RETURN ON INVESTMENT BY ATTENDING THE 2021 STMA CONFERENCE:

ROI Formula

$$\frac{\textit{Net Program Benefits - Costs}}{\textit{Program Costs}} \textit{ x 100 = ROI}$$

$$\frac{\textit{\$134,414 – \$2473.44}}{\textit{\$2473.44}} \textit{ x 100 = 5334\% ROI}$$

Attending the STMA annual conference can yield a 5334 percent return on investment for each facility that sends its sports field manager. This high rate of return provides an amazing value back to the sports facility. Even if only half of the resource savings ideas learned at the conference are applied, the ROI is more than 2500 percent – which is still a remarkable value. Please visit the STMA website for more information, www.STMA.org.