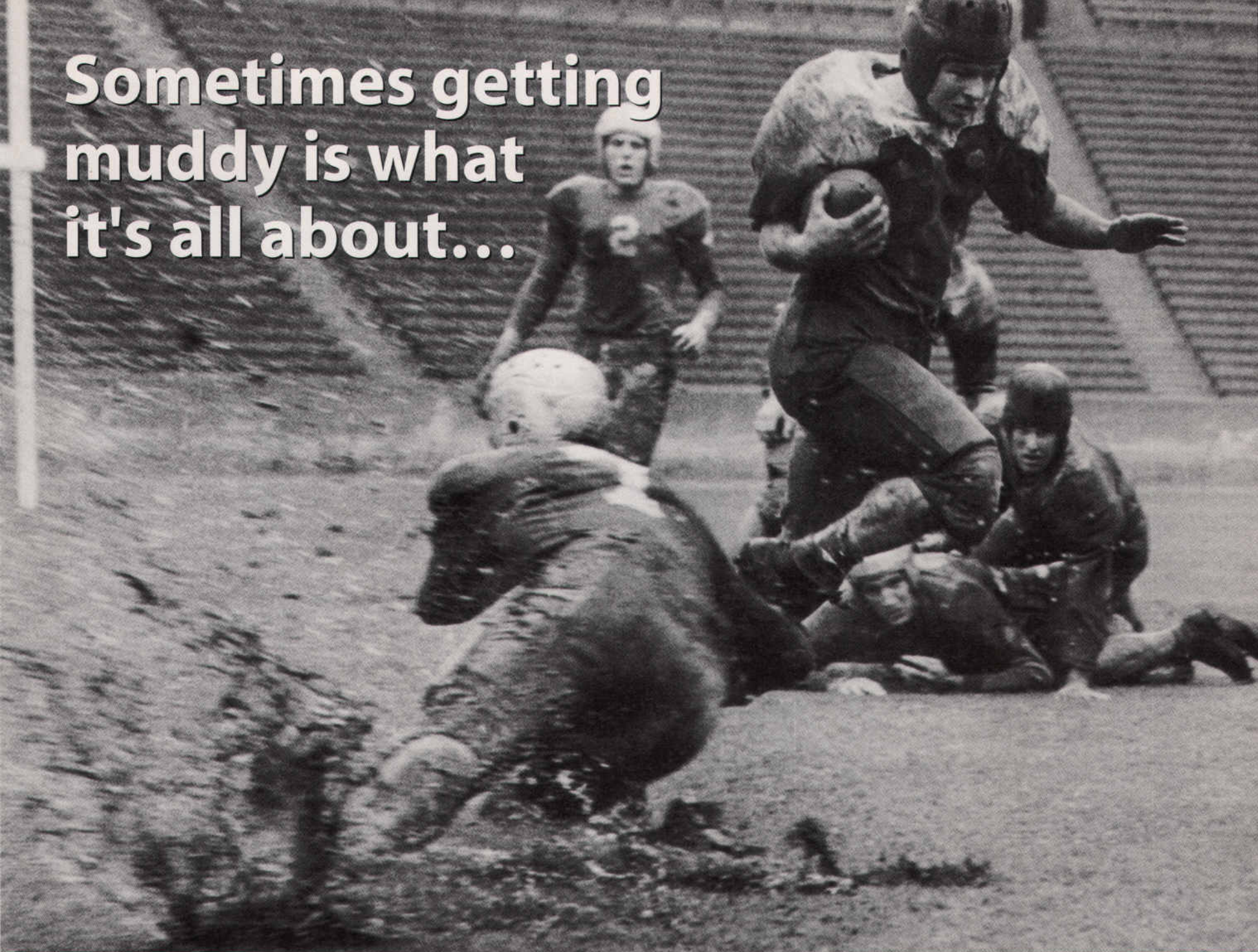


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Cal Ripken, baseball's Iron Man, chose Jacobsen's Tri-King to keep the field at Ripken Stadium, home of his Aberdeen Ironbirds, in major league condition. Jacobsen/888-922-8873 For information, circle 109 or see www.oners.ims.ca/2082-109

HUSQVARNA'S AERATOR

Husqvarna's AR25H aerator combines power and maneuverability for outstanding performance. The free-wheel design, strategically engineered weight distribution, and removable weights make the AR25H easy to operate. The unit features an aerating width of 25.5 in. and uses a 4.0 hp Honda engine.

Husqvarna/800 HUSKY 62

For information, circle 111 or see www.oners.ims.ca/2082-111



TRACTOR MOWER

The Simplicity Legacy has a heavy-duty drive train, advanced mowing system, superior traction, and foot-operated hydraulic attachment lift. Its Free Floating mower deck and full-width rear rollers glide smoothly over all types of terrain assuring a scalp-free cut, and leaving those distinctive lawn striping patterns.

Simplicity Mfg./262-284-8706

For information, circle 114 or see www.oners.ims.ca/2082-114





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- Patented brush design lifts turf fibers leaving them in a plush, upright position. Brushes move fill to low spots or depressions left after play.
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- The GreensSlicer combs through the fill material, relieving compaction and assuring a soft, level playing surface.



Synthetic Super Duty Blue Brushes
Resist wear and will not deteriorate from moisture.



GreensSlicer Spring Tine Rake
3 rows of 28 tines.



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SAFE Focus is Sports Turf Specific

The Foundation for Safer Athletic Field Environments (SAFE) was created by the Sports Turf Managers Association (STMA) to provide research, educational programs and scholarships geared to sports fields.

As part of our mission, SAFE is dedicated to supporting students focused on the profession of sports turf management through our scholarship program. Scholarship funds are earmarked for students of two-year programs, students in four-year undergraduate programs and for grad students. Along with the scholarship monies, each scholarship includes registration for the 2004 STMA Annual Conference, to be held in San Diego, California, January 21-25, and up to \$500 toward travel and lodging costs for attending the Conference.

Information on the SAFE Scholarship program is posted on the on the STMA website: www.sportsturfmanager.com. Click on 'About Us,' go to the SAFE Foundation, and visit the Scholarship section for the link. Student application packets may be downloaded from the site, or students and/or educators may request that packets be faxed or mailed by calling 800/323-3875. Hard copies of the packets are automatically sent to all STMA student and educator members.

As with our scholarship program, the SAFE Foundation believes in pro-active research and education. We are dedicated to fund the kind of research that sports turf managers need to improve the playing surfaces they oversee. Our close relationship with STMA provides an excellent perspective of the needs of today's sports turf managers. At the same time, STMA's sports turf managers and educators are the experts in the industry and will be capable of leading our research and education efforts. SAFE also recognizes that research must be effectively disseminated to professional turf managers and volunteer turf practitioners. Thus, our goal is to fund sports turf research and education.

The SAFE Foundation has much work to complete before it can supply the sports turf industry with the desired level of programs. Additional funding is needed to fulfill the scholarship, research and education arms of our mission. Your willingness to consider the SAFE Foundation's request for funding is truly appreciated.

We would like to answer any questions or requests that you may have. Contact Steve Trusty (Steve@st.omhcoxmail.com) for information.

Want to help us start a Sports Field revolution?
Contact Steve Trusty at
800-323-3875 for more information on how
you can make sports fields SAFE!

Sportsturf Machines

SMOOTHER CUT

The John Deere 1445 front mower is powered by a 31-hp, diesel, liquid-cooled Yanmar engine, which provides increased fuel economy, quieter operation, lower exhaust emission levels, and quicker starting, says the manufacturer.

Made to withstand a lot of wear and tear, the 1445 has a high-strength, tubular steel frame; heat-treated, nodular cast-iron front and rear axles; heavy-duty, dual hydraulic cylinders; a cast-iron rear bumper; and a composite hood.

John Deere/800-537-8233

For information, circle 133 or
see www.oners.ims.ca/2082-133



RIDING MOWERS

Land Pride's new Razor Pro Series of riding mowers incorporates the convenience of 44- or 52-in. deck sizes with commercial features like a twin cylinder gasoline powered engine, 11 gauge deck reinforced with 11 gauge doubler plate and heavy-duty push arms on the mower deck. An individual hydraulic motor powers each rear drive wheel for commercial like traction and maneuverability.

Land Pride/785-823-3276

For information, circle 117 or
see www.oners.ims.ca/2082-117



3-CYLINDER MOWER

Mega-Max by Yazoo/Kees is a large frame, mid-mount zero turn mower available with three Daihatsu engine options; 27-hp diesel, 34-hp turbo gas, or 34-hp turbo diesel. Cutting deck constructed with 7- and 10-gauge steel, available in 61- or 72-in. widths. Machine has six adjustable rollers to protect turf on uneven terrain.

Yazoo/Kees/877-368-8873

For information, circle 124 or
see www.oners.ims.ca/2082-124



president's message

(Cont'd from page 7.)

1. b. Although a job might seem less time-consuming to do yourself, a new manager's most important responsibilities include delegating and training.

2. a. When things go wrong, serve as a buffer and take the heat. Keep the pressure off your people so that they can do their jobs. When managers shift blame to employees, they lose trust, respect, and loyalty.

3. a. Everyone enjoys feeling special and appreciated. Otherwise, they will put less energy into their work.

4. b. Getting frustrated is human, but it's childish to lose your temper. Controlling your emotions exhibits self-control.

5. c. Getting work done through other people could mean getting products shipped or sold, providing quality customer service, or getting purchases in on time at the best price. Your boss expects your team to function effectively and efficiently through your guidance.

6. c. Develop your people. While it might be difficult to find the time, people want and need to grow.

7. a. Making decision takes courage. You won't always have all the data and may make mistakes. Still, no one respects or follows a risk-averse leader.

8. a. When managers are irritable one day and charming the next, their unpredictable behavior causes employees to assume the worst. People work best with leaders who show predictable and consistent behavior.

9. c. Stimulate as many senses as you can to help reinforce the lessons you teach. People learn through demonstrations, visual aids, actions, and participation.

10. a. Research indicates that about 30 percent of any group will be resistant to change; about 20 percent will readily move toward the new direction; and 50 percent will adopt a wait-and-see attitude.

Scoring

80-100 *You are wise and knowledgeable.*

60-70 *Examine specific areas of this quiz in which you can improve skills.*

Below 60 *No one said that managing people is easy. Care about your employees enough to improve your competence.*

Editor's note: Reprinted courtesy of Dallas-based author/management consultant Valerie Sokolosky and Southwest Airlines Spirit magazine.

bcampbell@UTK.edu



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Toro/800-803-8676

For information, circle 130 or see www.oners.ims.ca/2082-130

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Things to know when lighting a sports field

Photos courtesy of Musco Lighting

BY JEFF ROGERS

Lighting an outdoor sports facility is an exciting endeavor, but you need to ask many questions to ensure the success of your project. Will fixtures be energy efficient? Can burdensome maintenance costs be avoided? Will the lights meet safety standards?

When planning a sports-lighting project, three elements of design should be understood: lighting, structural, and electrical.

Sports lighting should provide a specified quantity and quality of light on the playing surface. The required quantity (level) of light is determined by the players' skill level, the speed and size of the ball, the number of spectators, and any television requirements.

Manufacturers should provide calculations that state both initial and maintained light levels, usually stated in foot-candles. Initial light levels concern the amount of light produced when the system is new. Maintained light levels concern the amount of light to be maintained on the field throughout the life of the system. When comparing manufacturers' proposals, be sure all are designed to the same criteria.

Specifications should also address uniformity, or evenness, of light on the field. Poor uniformity is a safety hazard for players, and unpleasant for spectators. Just like viewing movement under a strobe light, as the ball travels between light and dark areas, it appears to change speeds, making it difficult to gauge with the eye. To ensure smoothness, ideal lighting design provides no variation in light greater than one percent per foot. Uniformity ratios should be included in each manufacturer's proposal.

Manufacturers use computer-generated models called point-by-points. These models are used to evaluate the quantity and quality of proposed lighting levels. It is extremely important that each manufacturer determine how many fixtures are needed to achieve desired light levels, but it would be a mistake for a buyer to base a decision on a designated number of fixtures. That's comparable to buying a car based on the size of its gas tank rather than its fuel efficiency. All 1,500-watt metal halide lamps produce the same amount of light.

Structure

The two structural components of a lighting system are luminaire assemblies and poles. Each component affects the initial cost, life-cycle cost, safety and quality of a project. The luminaire assembly consists of a lamp, reflector, ballast mounting, cross-arm and mounting hardware. If the luminaire assembly is not sufficient to support fixtures that can weigh 60 pounds, the original aiming pattern of the fixtures may be altered, which will result in a loss of proper quantity and uniformity of light. When aiming patterns are disturbed, the only way to restore light levels is to re-aim fixtures, a costly and tedious process.

A manufacturer that pre-aims fixtures in the factory can eliminate the initial aiming and re-aiming problems that often accompany installation. Technology allows mounting hardware to lock into place at a pre-determined aiming position.

When it comes to poles, a consultant or lighting manufacturer can help determine the correct strength and burial requirements, based on wind



and soil conditions, and the design of the luminaire assembly. In some areas, pole foundation design and installation are subject to governmental review.

Three types of poles are commonly used in sports lighting installations, wood, concrete, and steel. Wood poles, usually the least expensive to purchase and install, have high maintenance requirements. Exposure to rain and wind causes wood to warp and twist; this can create serious fixture alignment problems. A 10-degree misalignment can cause a loss of as much as two-thirds of the light on the field. Concrete poles are often less expensive than conventional steel poles and can be direct buried. However, concrete poles are heavy and expensive to set.

Conventional base-plate steel poles require construction of expensive concrete foundations with anchor bolts. An alternative steel pole design offers a galvanized steel pole shaft that slip-fits over a concrete base which has been set directly into the ground and backfilled with concrete.

A sports lighting electrical system should be safe and simple. Although the electrical requirements for athletic fields are specialized, they are far less complex than most commercial and industrial applications. Electrical systems that comply with the National Electric Code, as well as state and local codes, coupled with luminaire assemblies that have Underwriters Laboratory approval, ensure that an installation will operate safely with minimal electrical maintenance.

Grounding at the service center and at each pole is needed to ensure the safety of anyone who comes in contact with the pole or electrical equipment. Grounding for lightning protection should be designed and installed according to National Fire Protection Association (NFPA) Code 780. Safety disconnects on each pole provide additional protection for service crews. Individual fusing of each fixture avoids gang failure of the lights and eliminates costly emergency repairs.

By keeping several additional factors in mind, the likelihood that a lighting project will please administration as well as players and spectators is enhanced. First, compare the warranties offered by different manufacturers. How long is each, and what items are covered? Multi-year part and labor warranties reveal confidence in the product. Next, be sure to develop clear-cut specifications concerning how the project should be built, and its expected results. Definite standards prevent unacceptable substitutions, and bids

that are overpriced to cover the uncertainties of an under-defined project. **ST**

Jeff Rogers is the vice president of developmental sales for Musco Sports Lighting, Oskaloosa, IA, 800-825-6030.

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Around the Grounds

POWER BROOM

Shindaiwa, Inc. has recently introduced a new nylon bristle brush for the PowerBroom models, PB270 and PB2500. The new nylon bristle brush is ideal for installing synthetic turf, and breaking apart synthetic grass turf fibers.

Shindaiwa, Inc./800-521-7733
For information, circle 078 or
see www.oners.ims.ca/2082-078



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Fastsigns/800-827-7451
For information, circle 079 or
see www.oners.ims.ca/2082-079

MARKING SYSTEM

This combination measuring wheel and marking wand allows you to measure and mark at the same time, says the company. Ideal for use on rough terrain, the Model 400PM features steel construction, a single English counter, a wheel brake to prevent the loss of an existing measurement, and a built-in stand.

Forestry Suppliers/800-360-7788
For information, circle 088 or
see www.oners.ims.ca/2082-088



LATEST LIGHTING DESIGN

The GE Powr Spot luminaire comprises the core of GE sports lighting solutions for recreational and competition sports fields at all levels. The product's optical assembly features a one-piece, parabolic aluminum reflector, coated with silicate glass finish chemically bonded to the aluminum surface.

GE Sports Lighting Systems/828-693-2000
For information, circle 077 or
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