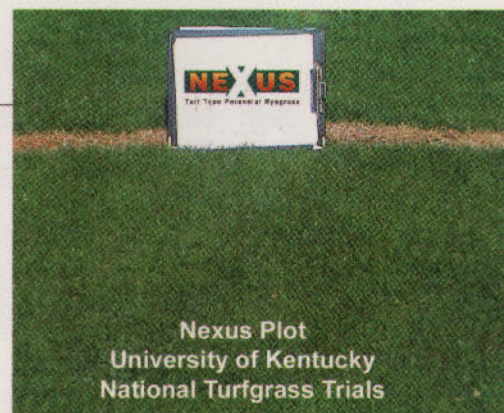


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In the recently concluded 2003-2004 Bermudagrass fairway overseeding trials at Mississippi State, Vixen perennial ryegrass and Par 5 perennial ryegrass blend were top performers in turf quality and color ratings. Vixen was first in overall turf quality in the recently completed trials of new and experimental cultivars. From November through May, Vixen had the top score of 5.9 in overall turf quality in the trial. Par 5 Blend, which includes Vixen and another top performer, Icon perennial ryegrass from Burlingham rated a 5.7 in turf quality for the same timeframe. With an LSD (least significant difference) of 0.2, Par 5 ranked in the top statistical group also. Burlingham Seeds/800-236-0296 For information, circle 061 or see <http://www.oners.ims.ca/2914-061>



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Irrigation System Choices for Athletic Fields

BY LUKE FRANK

For irrigators, discussions on efficient water management often-times start with sprinkler equipment and gradually work their way out the actual beneficiaries, turf and plant material. Perhaps an equally valuable approach is to start from the periphery and work our way in.

After all, what is it that we design irrigation for? Turf. Each and every turf cultivar has a unique and distinctive water requirement based on plant physiology, soil conditions, climate, height of cut, exposure, traffic, and so forth.

Well-designed and operated irrigation systems will take into consideration all of these variables and create the control to distribute water to each area or zone individually. Adjustable, part-circle heads, either rotor or spray, help isolate and control irrigation applications for turf types, baselines, end zones, pedestrian and player areas, etc. Head-to-head sprinkler spacing with uniform precipitation rates are a must. Let the turf demands configure your irrigation equipment requirements.

By targeting these zones based on their individual watering requirements, we not only conserve water, but prevent pests, turf damage, soil degradation, system wear and tear, and more. So, let it be said that not all irrigation system choices are founded on equipment and capital—there are other equally important choices.

Mix in a little soil

So, we've lightly touched on the plant material, now let's proceed to soil conditions, which can vary depending on the composition, age, use and cultural practices of your facility. Generally, athletic fields present an opportunity to improve overall management efficiency through a relatively level, uniform soil profile that more evenly distributes water and nutrients to the turf.

Consistent verticutting, aerifying, topdressing, seeding, and if necessary leaching programs can create and maintain that soil uniformity throughout the profile. Irrigation designed around soil percolation and water holding characteristics (and incorporating the standard of matched precipitation rates) will cultivate a healthier, more durable and resilient playing surface.

Treat acute and chronic issues of sun and wind exposure, run-off and drainage, soil and water pH, and high traffic areas individually. Ideally, these conditions will be incorporated into the irrigation system design and scheduling regimens. Areas with more sun or wind exposure should be zoned separately, as should areas that receive more runoff from structures, challenged drainage and/or punishing traffic.

For many, the first instinct in treating stressed turf is to bump the irrigation schedule. And frequently that will do the trick. But chronic problems are serious and should be dealt with swiftly and holistically. Don't hesitate to rehabilitate poor

soil or water quality.

You have options. Tying in an injector system into the irrigation system might be a sound investment. Ensure that you purchase a reputable product with a long-established track record, a legitimate warranty, and good customer service.

Note that equipment alone won't take your facility to the next level. That requires a commitment to learning how to gather and use information, with your target always being the plant material. You have to really dive in.



Collecting info

Start with a lab(s) that can analyze soil type and pH, water pH and composition, and plant tissue for nutrient deficiencies. You may learn that you are applying the appropriate blend of nutrients, but they're bound in the soil so there's limited uptake by the plant.

Once your strengths and weaknesses are identified and logged on a spreadsheet, blend yourself a custom solution. Determine your goals: aggressive root growth; prolific shoot growth; quick regeneration and so forth.

With the agronomy resolved and recorded, learn the equipment: pump, tanks, filtration, backflow prevention. Also learn and understand the desired nutrient concentration in your irrigation water, the frequency of application, liability issues (e.g., kids playing in the sprinklers or fertigating near a storage pond or ornamental fountain).

Re-familiarize yourself with your irrigation system. Measure the distance between sprinklers, the pressure at each head, and rotation times. Replace worn or damaged nozzles and ensure each sprinkler head is of the same make and model

installed flush and perpendicular to grade.

Finally, if so motivated, run a catch can test to determine sprinkler uniformity and actual precipitation rates, and make all appropriate, practical adjustments. I generally recommend during this process that you replace all rigid or flexible risers with swing joints, to protect against breaks and leaks.

Irrigation controller selection is another important piece of the puzzle. To take full advantage of the information you've gathered up to this point, consider irrigating from a central computer. You don't have to buy a Cadillac, but you do need a few extra capabilities to tie everything together.

Central programs enable you to collect and archive the essential data, perform the necessary calculations, and program the irrigation schedule with accuracy and precision. Other helpful features include system alerts (like flow sensors), expandability (adding zones, etc.), remote control capabilities, and any real-time weather or moisture monitoring devices.

Because of the grade, soil, and turf uniformity of athletic fields, there may be an additional opportunity to employ tensiometers (soil moisture sensing devices) in your irrigation practices.

Installed in the appropriate areas and at the proper depth, these increasingly improved products hard-wire to a zone valve and activate and de-active irrigation sets according to the desired soil moisture level in that zone. Many turf managers initially program a 50-percent soil moisture depletion level and adjust from there, according to individual turf needs.

Tensiometers, gypsum blocks, and other soil moisture measuring devices have been used in agriculture for decades. The products are more affordable and reliable than ever. Some are more expensive, last longer and offer more accuracy than others. Do some research and talk to colleagues before implementing such a program.

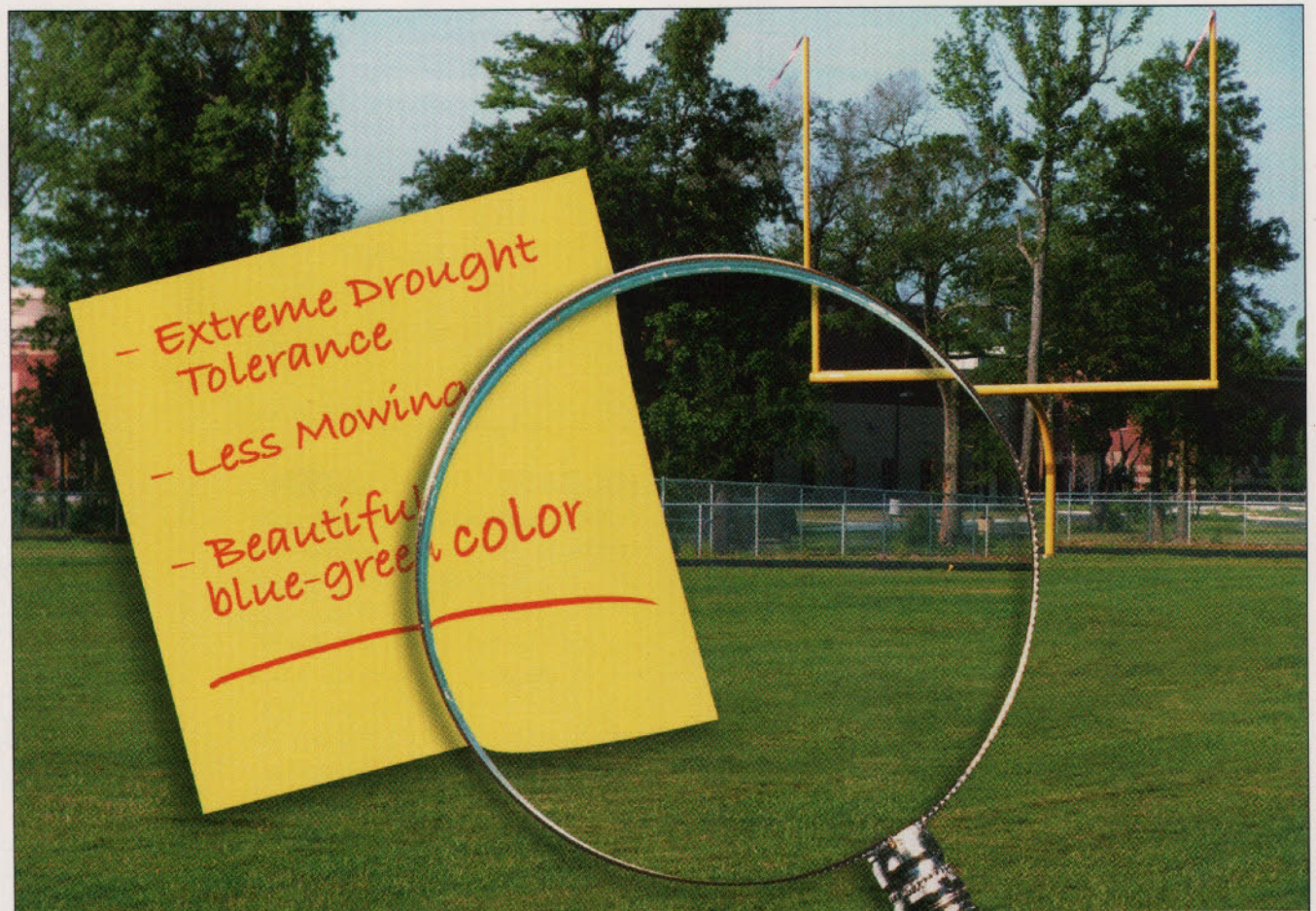
Recipe for success

These are but a few tips. Nobody knows your facility better than you do. By improving the science with which you manage your turfgrass, and implementing the proper equipment to deliver that science to the playing surface, you can take your facility to the next level.

All irrigation equipment, old and new, needs regular inspection and maintenance schedules, and swift repairs. Maintain an inventory of equipment: matching sprinkler heads, nozzles, pipe, swing joints, wire, dry splices, primer and wet/dry cement, valve diaphragms, etc.

Finally, map out your turf management upgrade plan with specific goals and timelines and involve your crew(s). Track your information. Track your progress and data diligently and enjoy the fruits of your labor. **ST**

Luke Frank is a veteran irrigation writer and editor. He can be reached at lukefrank@earthlink.net.



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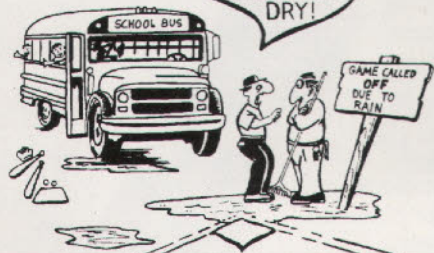
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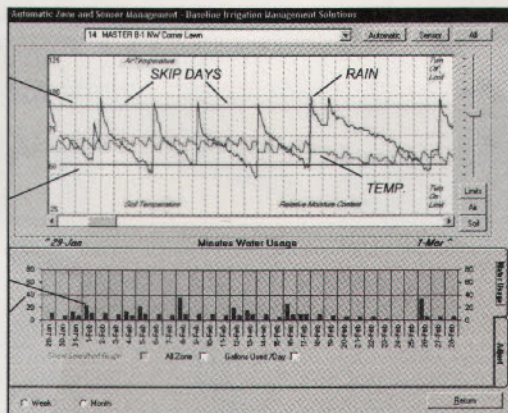
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Ewing Irrigation/602-437-9530
For information, circle 098 or
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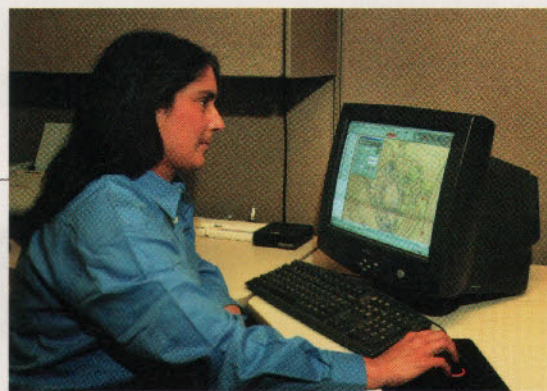


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The new Four Elbow Turf Swivel Joint from LASCO adds a fourth elbow, allowing convenient installment in a variety of positions, as in saddle installation. Designed for open discharge systems, these swivel joints can be used for bottom or side inlet sprinklers. However, they are not to be used for valve-in-head applications or quick coupler valves.

LASCO Fittings, Inc/731-772-3180
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RainBird/800-724-6247
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STMA AWARDS PROGRAM

The Sports Turf Managers Association (STMA) recognizes that you make personal and professional contributions to our industry and the organization you serve. For criteria and application information, contact STMA Headquarters at (800) 323-3875 or visit our website: www.sportsturfmanager.com.

This year, the following awards will be bestowed at the STMA Annual Awards Banquet, Friday, January 21, 2005, in Phoenix, Arizona.

- STMA Baseball Field of the Year Award
- STMA Softball Field of the Year Award
- STMA Football Field of the Year Award
- STMA Soccer Field of the Year Award
- STMA Sports Field Complex of the Year Award
- STMA Founders Awards: The Dick Ericson Award, The George Toma Golden Rake Award, The Dr. William H. Daniel Award, and the Harry C. Gill Memorial Award

Sponsorship of the Awards Program brings the following benefits to the designated individual of each facility achieving the Field of the Year or Complex of the Year Award:

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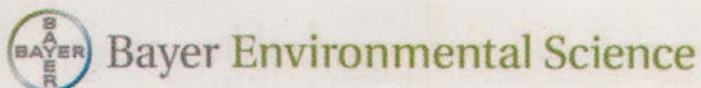
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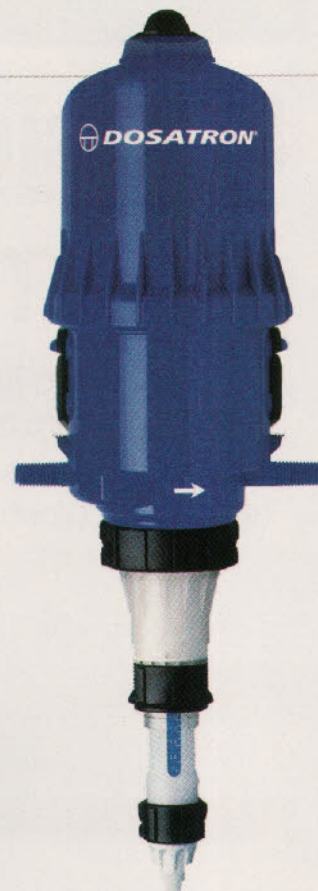


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Dosatron International, Inc/800-523-8499

For information, circle 104 or
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Respond 3 now has re-wetters that provide effects that last up to 25 percent longer than the previous formulation. MiZer Water Conserver is a brand new product specifically designed for use in irrigation systems covering large turf areas.

Verdicon/970-347-1325

For information, circle 106 or
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LR Nelson/888-NELSON8

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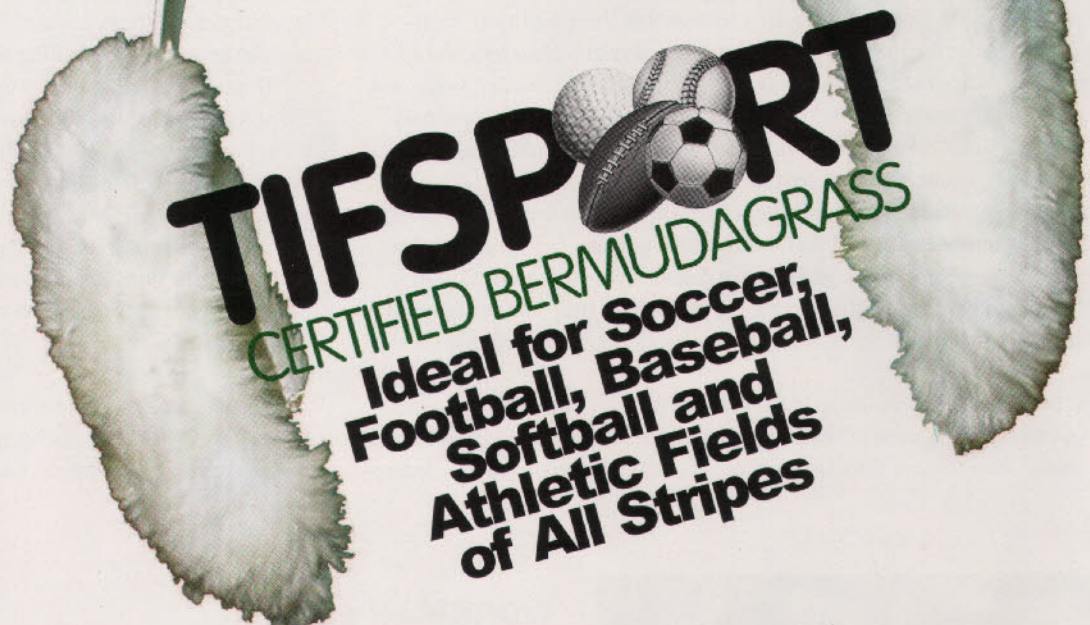
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BY JIM ROCHE

It's time for the parade



In researching this article, I went to the Bureau of Labor Statistics to find out how many turf technicians are employed in the sports turf industry. Guess what? The Bureau of Labor Statistics doesn't even know you exist! There was a category for "golf" but it mainly dealt with architecture and athletes. There was no listing for turf maintenance specialists or anything to do with turf other than the category of "small engine mechanic," which was linked with motorcycles and marine mechanics. Yikes!

If no one is looking at the existence of turf technicians as a profession unto itself, how is any manager going to figure out what his needs are, what he should pay someone to do this job, and what this technician's qualifications should be? Turf equipment uses both gasoline and diesel engines, and the government lists diesel equipment separately with heavy equipment like backhoes, etc. The question is, then, how can we address the turf technician's issues when the United States government doesn't even recognize them as a distinct group?

Let's take golf courses as an example. According to the National Golf Foundation's most recent figures, there are 15,899 golf courses in the United States. On average, each employs 2.5 technicians. This tells us that there are more than 39,000 technicians keeping the turf equipment running properly. Now let's add in college athletic fields, professional sports fields in football, baseball, soccer, polo, and other sports. Let's add in community and park district fields. The number could well surpass 75,000 technicians working in the turf industry. That's not including the technicians that work at dealerships that repair equipment.

Now that we have some idea of the number of technicians, we can look at several areas to get a better understanding of this most elusive worker. Talk to any of the 15,000+ golf course superintendents and ask them if they have a problem finding qualified people. The answer is yes, they do have a problem. There are only a handful of schools that train turf technicians. And those schools are having trouble filling their programs.

Here is a career opportunity for thousands of young people. The training exists, the jobs exist, but the students aren't enrolling. Why? Because they don't even know this profession exists. And neither does Uncle Sam. It's time to step out of the club-

house and into the classroom.

The Equipment & Engine Training Council (EETC) has been aware of this shortage on the dealership level of power equipment repair. The EETC wrote a book to assist dealers find qualified service technicians that the turf industry may want to read because it contains practical solutions to help employers find and keep good employees. Go to www.eetc.org for more information. There is also a list of EETC accredited schools that teach power equipment repair.

For the working technician, training can be next to nothing. All power equipment dealerships are invited to product training and update seminars annually. Because the turf technician is not working at a dealership, he is not invited to these updates. Here is where the turf technician associations come in; there are six of them throughout the US. You can find out more by visiting www.turftech.com, but, in essence, most of them offer training classes specifically geared to the turf technician. I recently attended a Turf Equipment Technicians Association meeting that covered reel grinding. Foley United presented the session and it was excellent. If a technician does not belong to a local technician association, he should join one immediately. If there is none in his area, he should start one. Any of the existing associations would be willing to help.

If we are going to overcome the shortage of turf technicians and power equipment technicians, it is time for the parade. We as an industry—technicians, executives, managers—have to get out there and beat the drum and toot our own horn. When the EETC first became organized in 1997, we felt that the major reason young people were not interested in our industry was because of parents steering them in different directions and school counselors steering them toward more "lofty" careers. I now think that it is because young people don't know we even exist. So it's time to get out of the back room, get out of the back shop, and let the world know that we're out here. **ST**

Jim Roche is executive director of the EETC, a non-profit association addressing the critical shortage of service technicians in the power equipment industry. He can be reached at 262-367-6700 or rjr10@wi.rr.com.



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The Toro Company/800-803-8676

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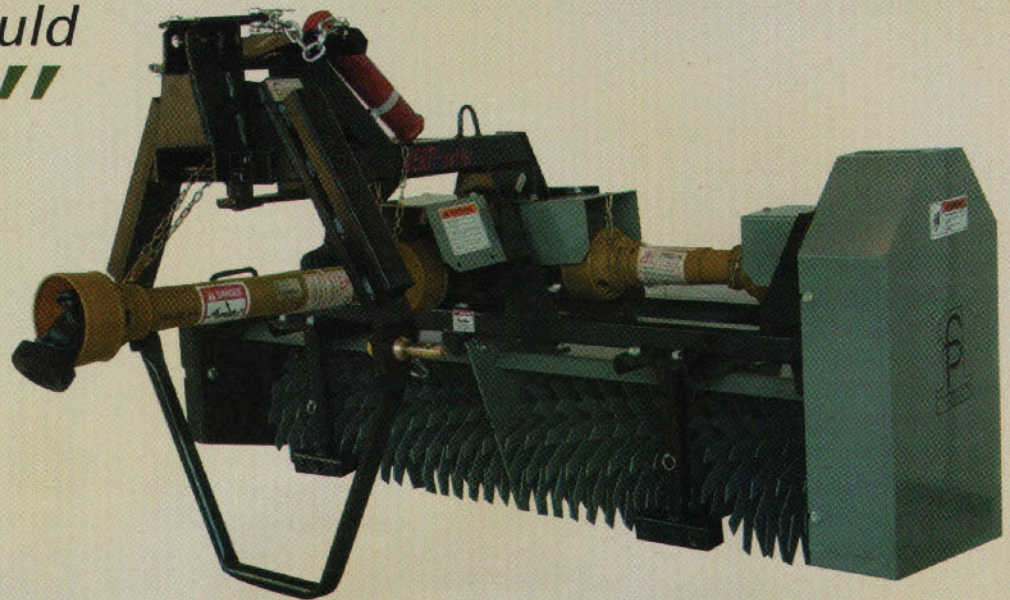
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Land Pride, Div. of Great Plains, Mfg., Inc

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John Deere/800-537-8233

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Bobcat Co./701-241-8700

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Broyhill/800-228-1003, x34

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