

New software is a success story down in Austin, TX, too. With a budget of \$7.9 million and more than 200 parks, the City of Austin Parks Department needed help tracking expenses, employee work crews and predicting future costs. Two years ago the department had difficulty tracking expenses versus budget. To solve this dilemma, the answer arrived in the form of some new maintenance management software. "Because of the software, we can now track expenses on all routine and preventative maintenance and even know the time it takes to mow the medians or repair an irrigation system," explains Leon Barba, division manager of operations for the Austin Parks Department.

"The software program is user friendly, too. From now on we can track expenses against budget," remarks Barba. The software is already improving efficiency in the department's forestry division, which had a backlog of more than 1,000 calls. "That number is now down to approximately 100 because of the software," says Barba. "The software also provides daily input sheets and lets us know where the crews are each day."

Computerized Irrigation and PGRs

Computerized irrigation control is one success story for Jerry Coldiron, CGCS, superintendent for Boone Links Golf Course, a 27-hole facility — as well as 18-hole Lassing Pointe Golf Course in Florence, KY. Lassing Pointe is ranked 29th Best Public Golf Course in the U.S. by Golf Digest and the number one public course in Kentucky. It's also the home to one of the NTEP turf trials scattered throughout the country.

"We continue to convert all 45 holes to OSMAC, a central irrigation control system based on radio communication from The Toro Company," says Coldiron. "We're also looking at Toro's SitePro to help us track equipment and labor. It's all part of our mission to take advantage of the golf boom. We

are upgrading all our facilities to move forward into the next century.

"Before OSMAC, we had controller clocks that required manual adjustments. OSMAC saves us a great deal of time and offers individualized irrigation head control. It even allows me to make adjustments to the system from my home computer." Coldiron says the cost of automating an irrigation system is really not that great compared to the benefits a golf course receives. "People who aren't taking advantage of computer technology are missing out on a great deal."

Coldiron is also pleased with Primo, a plant growth regulator manufactured by Novartis Turf and Ornamentals. "This was our first year to use Primo and I was initially conservative with its use." Coldiron started using Primo for its pre-stress water reduction benefits.

"With 45 holes and a lot of play, the mowing reduction has proven to be another important benefit." Surprisingly, Coldiron says the turf is easier to mow. "Our mechanics believe the combination of going spikeless and using Primo is easier on our reel mowers. We used to get a lot of mower damage from spikes. Primo also tends to soften up the grass."

Decoration Sales

Ruppert Landscape, Ashton, MD, began a push to spur holiday decoration sales during the summer months to avoid the last minute rush and to offer clients their first choice in decorations. "By booking orders earlier, our customers will find it much easier to locate hard to find or elaborate decorations," says Wendy Bell, director of corporate sales for Ruppert Landscape. "For those of us in the commercial end, we are not going to get the first choice in product if we wait too late in the season."

The early order program offers an advantage for Ruppert employees, too. "By beginning holiday decoration sales early in the summer, we now have a better feel for the number of employees we can hold over through the winter months," says Bell. She also emphasizes the importance that training plays in this program. "This year we had an early June training seminar specifically designed to teach our employees how to sell holiday decorations," says Bell. Installer will get more training in October.

The summer push not only benefits customers and employees, it's a significant financial payback for Ruppert. "Not only do we have a better feel for what we will sell in this year, we expect to dramatically exceed our 1997 decoration sales," says Bell.

Wildflower Mix Popular

For the past five years, Perennial Wildflower Sod has done an excellent job for Milwaukee County Stadium, home of the Milwaukee Brewers. "We've planted the wildflower sod in raised beds, parking areas and on a hillside too steep to mow," says David Mellor, assistant director of grounds



◀ David Mellor, assistant director of grounds at Milwaukee County Stadium, plants wildflowers as part of management program.

at the stadium. "Hillside plantings help our crew avoid mowing hazards and improve erosion control."

Perennial Wildflower Sod is available from American Sod Corporation, based in Palatine, IL. The sod arrives in 19 x 19-inch flats with a biodegradable burlap backing, making it easy to cut and shape the pieces as needed. Each flat features 19



17 good reasons why a Bobcat long-wheelbase loader is the wise buy for landscapers.

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2. Bobcat loaders are built to be dependable. Landscaper Roy Poirier of Barrie, Ontario, works each of his six Bobcat loaders up to 2,000 hours a year excavating, backfilling, grading, and loading and unloading topsoil and sod. "I can't say enough good about them," he explains.

3. Designed with muscle to spare, a Bobcat loader will dig all day — and can easily lift and carry sod, bricks, blocks and other heavy loads.

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5. With brisk travel speeds, Bobcat loaders cover more ground in less time. "The loaders allow us to work faster and take on more and bigger jobs," says Eric Proffitt, co-owner of a landscaping firm in The Dalles, Oregon.



6. Besides being brawny and fast, Bobcat loaders have added reach and lift height to clear high-sided truck boxes and hoppers. Loading and unloading is a breeze.

7. Bobcat loaders come in sizes to match every job. The 773, for example, is our mid-size lift-and-carry champ. The somewhat larger 863 takes on heavy-duty work with added power and speed, and the extra muscle of the big 873 makes every landscaping job easier, faster and smoother.

8. The hydraulic pumps on Bobcat loaders are designed to generate plenty of hydraulic power to operate attachments like Bobcat® Augers, Landscape Rakes, Power Rakes, Trenchers, Tillers, Breakers and more. High-flow options are also available for some models.

9. Speaking of attachments, we design and build more than any other skid-steer loader manufacturer.



Depending on model, you can select from some three dozen attachments, each with full warranty and Melroe's unequalled parts and service support.

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11. Bobcat loaders have drive chains that *never* need adjustment. We use endless loop, hardened steel drive chains configured in a "bow tie" pattern for longer life even in the most rugged conditions — with no periodic, time-consuming adjustments.

12. You can forget about axle grease. Bobcat axle bearings are self-lubricating — never need greasing. And our hub design offers great seal protection. Most other loaders require lots of grease — both axle and elbow.

13. Serviceability is unsurpassed. Simply open the swing-out tailgate for full access to the engine's checks and fills, filters and battery. And unlike other brands, the lift arms need not be raised to service the machine. Shop time is spent repairing, not gaining access.



THE bobcat ADVANTAGE

14. The Bobcat belt drive design allows the engine to run slower, resulting in quieter operation, longer engine life and lower fuel consumption — another feature found only on Bobcat loaders.

15. Operator training course kits and safety videos, available from your Bobcat dealer, let you train new operators and bring current operators up-to-date with the latest safety and operation functions on Bobcat products. (Some also available in Spanish.)

16. Bobcat loaders maintain high resale value year after year because of the Melroe Company's long tradition of quality-built products and after-sale support.

17. When you buy Bobcat equipment, you get the advantage of a worldwide network of Bobcat dealers offering industry-leading parts and service support. In fact, there are more full-time, dedicated Bobcat dealers and factory-trained support staff working exclusively to serve your compact equipment needs than any competing manufacturer in the world.



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A broadcast wildflower mix enhances seasonal color of Perennial Wildflower Sod.

species of perennial wildflowers and comes with about 100 established, three-inch perennial plants.

"One of my initial concerns was whether the perennial sod would turn into a monoculture of one or two dominate species." However, Mellor finds the species balance continues to be very good — even after five years. To enhance color, the crew broadcasts an annual wildflower mix over the perennials. "Our fans, players and stadium employees really enjoy the wildflowers. We frequently take cuttings and use the flowers for bouquets in the stadium offices." Like any landscape plant material, Mellor notes there is still maintenance with the wildflower sod. "We selectively go in and spray with Roundup to control invasive weeds like thistles," he says.

Outsourcing Works

Larry Iorii, president of Down To Earth Inc. in Wilmington, DE, has a success story

that involves a team approach to business.

The company outsources portions of its landscape management services and even shares a warehouse complex with two competitors. "My team approach evolved while I was president of the local Professional Grounds Management Society (PGMS). I developed strong business relationships through networking and gradually learned who I could count on for outsourcing," says Iorii.



Teamwork works: L to R, Dave Quillen, Grass Roots, Inc., Tim Schaeffer, Chelsea Flower Gardens; Larry Iorii, Down to Earth, Inc.

"Not every job requires high-end maintenance. For accounts with only mowing, we can often outsource 100 percent of the work. For other job sites, the split might be 50/50, where we perform the detail work and our subcontractors do tree trimming and lawn mowing," explains Iorii. Subcontractors enjoy teaming with Iorii. "I pay all my subcontractors on the 10th of the month. And because I only have three-year contracts with my customers and a contract retention rate of 95 percent, they know it's stable work for them."

Iorii says outsourcing is a two-way street, because he also receives business from competition. "For example, when people think of lawn renovation in this area they think of Down to Earth. My competition frequently will call me to perform lawn renovation. It helps them because they don't have to buy core aeration equipment. In other cases I might sell my consulting services." Iorii believes the team approach benefits his customers, too.

"Even though we're a small company, we can provide our customers with people who specialize in all areas of landscape management."

The team approach even extends to Iorii's shop complex, which includes three warehouses. "I lease two of these warehouses to my competitors. We share a forklift, instead of buying three, as well as sharing a tractor to load up mulch," adds Iorii. "And when I buy supplies like fertilizer, seed and pesticides, I

purchase larger quantities and sell it back to my competitors at cost. We get a better price because of the larger quantities."

New Turf Care Facility

At Bluegrass Yacht & Country Club in Hendersonville, TN, the big news is the groundbreaking for a 6,000 square foot turf care facility. The building will have an administrative zone, break room/training room, equipment shop area and ample equipment storage. It's scheduled to be completed during December of this year. "Bluegrass was constructed in the 1950s and has undergone many improvements in the past few years," says Lynn Ray, vice president of Golf Management Group, based in Brentwood, TN. Ray is directly responsible for turf care at three golf facilities, including Bluegrass.



Lynn Ray, vice president of Golf Management Group, expects the turf care center to extend the life of maintenance equipment.

"A turf care center is not as tangible as a new green or tee. Bluegrass should be applauded for its recognition that the facility will improve their golfing experience and extend the life of maintenance equipment," adds Ray. He says discussions to build the turf care center began three years ago. "Don Dixon, greens committee chairman for the club, really helped move the process forward."

"We set out to identify the positives and negatives of building a new facility and to examine it from from a cost and function standpoint," recalls Ray. Some dollars were approved to do a feasibility study by the Hawkins Development Company of Nashville.

"We did not take the usual architect/owner/contractor scenario. Hawkins is a design/build firm. They worked with us from a conceptual standpoint that allowed us to develop a sound budget number as we refined our plans."

"Virtual Reality for Landscape Design

"We've been impressed with a new landscape imaging software package we learned about while attending the Green Industry Expo," says Bill Arman, vice president of business development for Environmental Care, Inc., Santa Ana, CA branch. The software package is called Earthscapes, available from Visual Impact Imaging, headquartered in Hopatcong, NJ. Arman says ECI purchased the software and has found it to be a useful sales tool.

Earthscapes software offers imaging, site plan and estimating capabilities. It provides 2,300 high resolution images — featuring an extensive plant library from all climate zones, as well as a modern hard-

scape library. The library also includes water features and lighting. The site plan is a CAD software.

Arman details a classic example of how ECI uses Earthscapes. "Right now there's a large retail center where we do not currently have the business. The property manager casually mentioned he liked an annual display we planted across the street



Earthscapes allows Environmental Care to optimize sales opportunities.

at another property," explains Arman. "We took a picture of his site and scanned the photo into the computer, then used the software to enhance this picture with the same plant treatment." ECI was able to show the property manager how it would look at his property. "The property manager was impressed and we're now in the final proposal stage to obtain the business."

The author is with Irricom, a communications firm in Austin, TX. He holds a Master of Science degree in horticulture from Oklahoma State University.

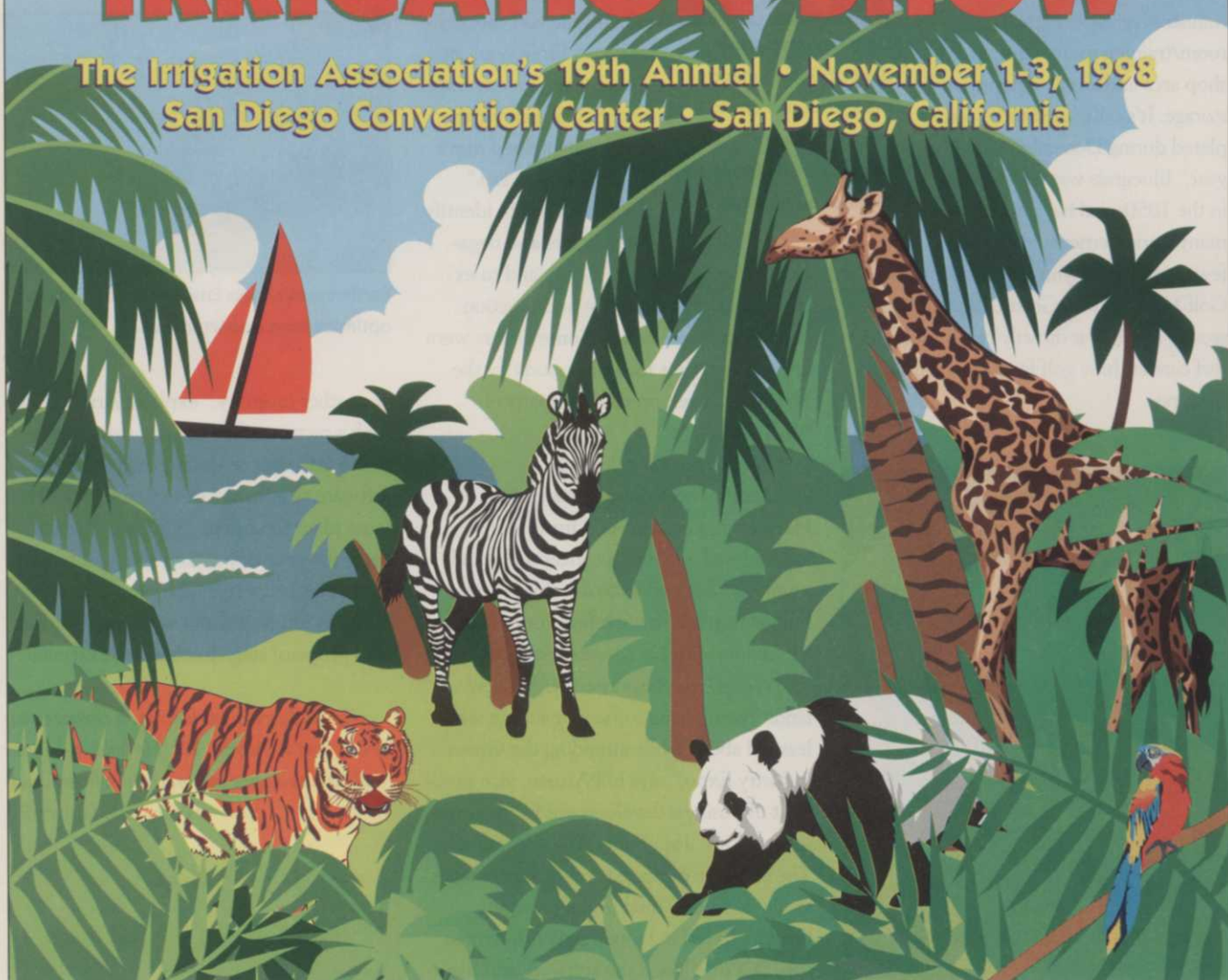


Happy to begin breaking ground: L to R, Don Dixon, Bluegrass Yacht and Country Club Greens Chairman; Garrett Martin, employee of 43 years; John Gardner, course superintendent.



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Is the site right?

The three most important considerations for planting success (like buying real estate) are: location, location, location.

By NANCY STAIRS/
Technical Editor

Planting, whether trees, shrubs, annuals, perennials or ornamental grasses, is not simply a matter of putting stock or seed where ever the whim strikes you, the customer wants you to, or the landscape designer indicates to you.

Much of the success or failure of landscape elements are due to three important factors: location, location, location.

Location affects virtually every aspect of planting success. When location is broken down into the various elements that affect plant establishment and growth, it may seem like there is a lot to consider. That is true, initially. The trick is to be aware of the characteristics of any potential planting site, and that's something that comes with a little practice.

Practically all of you reading this article can think of situations where what you saw in the landscape caused you to stop in your tracks and shake your head. This means that most of you already have some of the location factors already in-grained, so let's bring them to the surface and review them. This may refresh your memories and possibly remind you of some factors you may have been temporarily overlooking.

Location factors

Temperature - the hardiness zone (or the tolerance to climactic extremes) of a plant indicates its extent or range. It is possible to locate

stock outside the recommended range but you may find the stress conditions increase plant vulnerability to insects, disease, decline etc. When placing a plant at the edge of, or beyond, its hardiness range, try to locate where the extremes are moderated (a sheltered site in the north, for example, could provide a suitable microsite) and realize that any extreme weather or temperatures could kill the plant at some time.

Light - whether a plant prefers direct sun or shade, it may be possible to survive where the light is different from its typical requirements. However, this is another source of stress to a plant and may affect vitality as well as the leaves, flowers and/or fruit in size, color and amount. Increased or decreased moisture levels from the sun and heat (or lack of) can weaken plants and make them more prone to pest and disease problems.

Moisture - more or less moisture availability is not simply a function of irrigation (or the lack thereof). The drainage of the soil can be a factor, including changes to drainage due to construction (even when not directly beside a plant). In wet locations, a mounded or bermed planting site can help raise the plant to increase drainage. In drier sites, or where no irrigation is likely to occur, mounded plantings may dry out too quickly. The moisture needs of a plant and the moisture available should be in the same ballpark. This is a common stress factor for landscape plants.

Soils - a lot of factors come under the category of soil, such as texture and structure, drainage, pH, and the soil requirements for a particular plant. Knowing the characteristics of the soils, including the extent of compaction, before planting can help reduce problems, as well as the need for remediation later on.

Other effects - these cover a broad range, from pollution sensitivities of a



Different locations can mean different problems. This flowering dogwood grow best in partial shade; in this location with full sun and no mulch it may be prone to borers; in too much shade and/or mulch, dogwood anthracnose may be a problem.

plant, winter salt use, vandalism, mechanical damage, mature size and spacing, proximity to buildings, parking lots or other hardscapes, and local pest and disease problems. There is little point in planting a pollution sensitive plant on a median of a highly traveled road or in a parking lot, even in a "good" growing site, which is rare in itself.

Planting for the present visual effect without considering the mature size and potential for crowding is short-sighted and can lead to problems, in both above-ground and below-ground competition. On more than one occasion I have seen Colorado blue spruce planted practically in a doorway of a building and wondered if anyone had given any thought to that phenomenon known as growing. Or seen a line of young trees, which are spaced nicely for the present or if they were to remain small trees, but are much too close for the large, mature trees they will become.

Stress and the single plant

Interestingly enough, when you consider these factors, you're actually well on your way to a major preventive component of an Integrated Pest Management (IPM) or Plant Health Care (PHC) program. Trying to make the best decisions and choices by taking into account the limitations of your plants and the site factors before planting will minimize stress upon plants once installed in the landscape. We can't always predict how well a plant will do on a site, but we can try to stack the deck in its favor.

The issue of location, and the site factors which are a part of location, is important mainly due to the stresses that can result from poor plant placement. Basically, a stressed plant is one which is not growing under optimum conditions, so that the plant spends more energy reserves for survival and less energy is available to store carbohydrates, extend roots, and put on top growth. Stress can be short-term (acute), like a drought, or long-term (chronic), like lack of nutrients. Chronic stress can lead to plant decline which can result in an unattractive plant or death.

Stress can be compared to a person being run down from lack of sleep or poor eating habits. The body is less able to withstand and fight off germs, but likely to recover. In chronic situations with poor nutrition or lack of health care, there may be more problems and even something relatively minor can become a serious problem.

In a similar way, healthy, vigorous plants are better able to withstand temporary droughts, and disease and pest problems; while plants which are



These trees have chronic stress from a number of factors: pollution, poor soil, soil compaction. The excess moisture may be a short-term or long-term stress depending on how long it sits on the site.



Repeated damage can be considered chronic stress. If mechanical damage, even mower damage which occurs a single time, is likely, take additional steps to protect the tree so that the location does not prove fatal.

weakened are subject to attack by secondary agents. For example, a tree weakened by drought may be more susceptible to attack by borers. Indeed, some pests are attracted to weakened plants.

You can't control all the factors affecting plants in a landscape situation, but you can reduce some of the negative impacts by considering the plant requirements and the effects of location.

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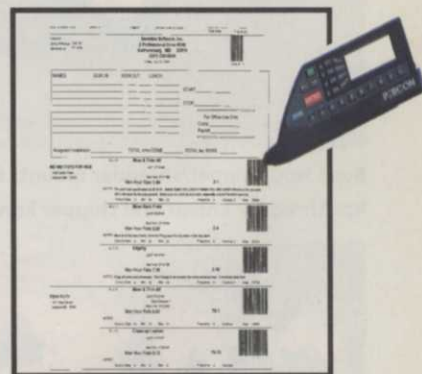
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CHIPPERS

Look at cutting power and portability, but don't overlook ease of use.

By CURT HARLER/ Contributing Editor
There is more than just horsepower to consider when shopping for a chipper/shredder. When the call goes out for a new chipper, look for one with a big mouth.

While everyone is in love with power, perhaps more important than sheer cutting ability is the unit's ability to take in material at the head-end. That is, how large a bunch of branches can workers feed through the chopper's throat at one time? Armsful of leaves and twigs or slender tree limbs with spreading branches call for a chipper with a wide mouth for easy filling.

Every product listed here conforms to safety standards. However, it is important to check all equipment (including mowers, chippers, saws) after purchase, to be sure your workers have not done an "aftermarket" adjustment that overrides the necessary safety features.

Again, the big mouth comes into play — a chipper with a wide, clutter-free opening is less apt to clog and to devour a rake handle that has been shoved inside to unplug a jam.

Consider where the unit will be used. Will you use it for small jobs around residential sites? Does your business get involved in a lot of heavy tree or brush removal? Will a tractor be available, permitting use of higher-powered pto-driven equipment, or does the job demand portability?

A truck-mount is important for firms with a lot of small cleanup jobs to do. A big mouth does not mean a loud mouth. A quiet chipper will be more acceptable in neighborhoods where landscaping noise has become an issue and with workers who are near the machine on a regular basis.

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