A MANUFACTURER'S PERSPECTIVE

Making a better mower

Manufacturers talk about the key qualities they consider in their quest for the perfect mower design

When it comes to designing the perfect mower, no one knows more than the manufacturers themselves. They all put comfortable seating, increased productivity, ergonomics, operator safety and quality of cut on the list of things they strive to improve upon with each new design.

"We try to achieve a balance of speed and performance with our walk-behinds," says Jon Vyn, director of equipment marketing, Lesco, Inc., Rocky River, OH. "However, if the operator is inclined to cut at a speed faster than the machine will tolerate, he'll end up with less than an acceptable cut."

To combat operator fatigue and boost productivity, manufacturers are offering several design features that are either standard or optional equipment on their mowers.

"We offer a stand-up platform and a sit-down sulky seat as an accessory option for our walk-behinds in an effort to reduce operator fatigue," says Ken Taylor, business unit manager for...
LARGE CONTRACTOR

Name: John Dingus, Sr.
Title: District manager/landscape division
Company: Davey Tree Expert Co.
Location: Chantilly, VA
2000 revenues: $315,000,000
Business mix: 70% residential, 30% commercial
Employees: 135

When you take care of a cemetery, you don’t expect a lot of complaints, at least not from the tenants. But there’s one cemetery that’s under the watchful eye of an entire nation, so slip ups there never go unnoticed.

One big job

“We have a lot of bosses, from members of Congress right up to the President,” says John Dingus, Sr., district manager/landscape division of The Davey Tree Expert Co. in Chantilly, VA, which cares for Arlington Cemetery. Arlington Cemetery is the “granddaddy” of all maintenance contracts, a tedious job that often requires painstaking mowing and removal processes not typical of other maintenance projects.

“We get more complaints there because you’re taking care of someone’s final resting place,” says Dingus. “We have to strive for perfection because no one wants to see their loved one’s headstone all beaten up.”

Dingus’s crew, which consists of up to 135 workers during peak season, has to mow more than 100 acres a day rain or shine and each year remove 300 loads of leaves and lay about 60,000 yards of sod on one grave at a time.

“The leaf removal process is more difficult than the mowing because you can’t drive on the graves,” says Dingus. The maintenance itself is a Herculean feat when you consider the thousands of visitors who walk this hallowed ground each year.

In addition to maintenance, Dingus’s operation offers everything from design and chemical application to snow removal to some of the busiest, historical landmarks in Washington, D.C., including the FDR memorial and the White House. His equipment arsenal consists of several bucket trucks, zero-turn and front-line mowers for greater speed and maneuverability, walk-behinds, a giant vacuum, backhoes, mowing tractors and spring trimmers. His company also owns a

Commercial Lawn & Garden, Husqvarna, Charlotte, NC. “In addition, we offer a deluxe seat that has a lumbar adjustment and an optional foot-assist deck lift accessory which makes curb hopping, deck lifting and/or trailering the unit easier.”

A premium full suspension seat with weight adjustment is standard equipment on many commercial mowers today, including those manufactured by New Holland in New Holland, PA. According to Bob Warfel, product marketing manager for New Holland, the company’s products feature high, reclining seatbacks with fore and aft adjustment so operators of any size can position themselves comfortably in relation to the foot and hand controls. Flip-up padded armrests are included as standard equipment.

Mike Kadel, marketing manager for Dixon Industries, Inc., Coffeyville, KS, says suspension is a design feature that manufacturers are paying more attention to. “You want operators to stay alert and not be worn out at the end of an eight-hour-plus day,” he says. “We focus on a very comfortable seat and suspension system that keeps the operator separate from the movements of the mower.”

“Similar to the seating arrangement on big semi-trucks, our newest product features a big rig suspension fully adjustable seat,” he adds.

Full suspension seats with hydraulic dampening and adjustable tension controls are also a must for zero-turn mowers manufactured by the Country Clipper Division of Shivvers Mfg. in Corydon, IA.

“Also important is our single-stick, ‘point and go’ control system which allows the operator to push faster in the direction he wants to go,” says Carl Shivvers, director of marketing for Country Clipper. “As opposed to twin-steer control, the learning curve for the single-stick is quite short.”

With New Holland’s four-wheel drive, the operator can choose to select full-time four-wheel drive if conditions demand it.

In most applications, according to Warfel, the operator will choose the automatic mode whereby the system will automatically engage four-wheel traction when it senses slippage, then return to two-wheel drive when traction is regained.

“This takes the guesswork out of the operation, allows...continued bottom page 48
school bus which hauls employees and a trailer full of spring trimmers to the job site.

**Price not everything**

Production is Dingus's number-one buying criteria, not price. "You don't want to have a yard full of equipment and have it just sit," says Dingus. "I want to get the most I can for my dollar."

Packaged equipment is a viable buy for contractors wanting equipment that can do multiple tasks. "For example, one commercial mowing manufacturer came out with a trencher equipped with different adapters so you can bore, and it comes already rigged up on a trailer," says Dingus, whose company usually buys their mowing equipment outright through corporate and local suppliers. "The convenience of having everything you need on that one trailer and the ability to do several things at once is a big plus."

When it comes to equipment purchasing, loyalty is key. "We are loyal to those people who are loyal to us when we need service and parts," says Dingus. "If I have a machine that's breaking down time after time and it's not our fault, I want the manufacturer to stand behind that product and fix it."

With so much equipment, sticking to brand names is essential. "We do our own service and repair work, so we stick with brand names because we cannot afford to inventory 19,000 truck filters," says Dingus. Safety, of course, is also a consideration. "Our safety department has to clear every piece of equipment and check it out thoroughly before we can buy it," says Dingus. "We also provide a lot of training to our employees before they begin using it in the field."

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for the greatest fuel efficiency and greatly reduces the chance of turf scuffing," says Warfel.

Easy-to-reach controls are also important factors in boosting productivity levels.

"The controls and the handling of controls is important for comfort and minimizing fatigue," says Bob Walker, president of Walker Mowers, Ft. Collins, CO. "The speed control on our zero-turn radius mowers works like a cruise control — our machine sets the forward travel with the operator so the operator has his hands off the control, allowing for more relaxed operation. It also allows people with various degrees of handicaps — where they have limited use of their hands and arms — to operate the machine."

With its walk-behinds, Exmark Manufacturing Co. in Beatrice, NE, has developed a unique control system.

"Unlike the pistol-grip system, innovative topside positioning of the controls with this system keeps the operator's hands further away from obstacles, creating a safety zone that helps to protect hands from injury," says John Cloutier, national marketing manager at Exmark.

Seating position is also a critical consideration when it comes to working on hills and general maneuvering.

"In general, a lot of zero-turn radius mowers can be turned quickly, and it's important for the operator to sit on a pivot point," says Walker. "If your ahead or behind pivot, you'll get jostled side to side."

Vyn says Lesco has modified its operator controls over the last couple of model years to allow for greater operating ease and better balance.

"Engines, drive trains, spindles and wheel castors have all been upgraded for greater dependability," says Vyn.

Shivers says other design features that make mowers more productive are built-in hydraulic oil coolers, larger tires, larger wheel stands and larger engine options including more fuel-efficient, fuel-injected engines.

The quality of cut is also a factor in determining a mower's efficiency.

"Our blades provide a 50% increase in the time between sharpening," says Rick Cuddihe, executive vice-president at Great Dane Power Equipment, Inc., a manufacturer of stand-on mowers in Jeffersonville, IN. "This benefit saves our customers time and money."

Noise is another factor that contractors need to consider when purchasing mowing equipment.

"Our commercial mowers feature smooth-running diesel engines with improved lower noise levels," says Warfel. "The engines are isolation-mounted and feature underhood exhaust for quiet, vibration-free operation."

**Name your price**

Oftentimes, a good price doesn't equate to a good product.

"My formula for the best value for a customer is a machine that has the lowest possible cost of ownership and is highly-productive," says Walker. "Low cost isn't necessarily low price on the front end. Sometimes you can pay more and have your actual cost of ownership turn out to be less if it requires less maintenance and less repairs and has higher retail value in the end as a trade-in."

"The astute businessperson will look at real cost of ownership and all the costs that will go into the overall cost of a machine," adds Walker.
Like Dingus, Larry Burklund, general manager of World of Green in Lincoln, NE, believes that manufacturer integrity is important. "The true measure of a company is how their service department stands up to its equipment if we need something fixed," he says.

"We only use three suppliers but have had great luck and much success with them," he adds. "Excellent customer service and 24-hour service on equipment are important to us."

Almost all of Burklund’s accounts are commercial maintenance, requiring a dozen or so crews of three to four workers per crew and several chemical operators during his busiest season. In summer, his crews operate trimmers, five walk-behind mowers, 20 push mowers and several out-front mowers, some with bags attached.

"We do a lot of townhomes, which is difficult at times because each is unique and residents think of them as their own private homes," says Burklund.

As far as purchasing equipment goes, Burklund says his company buys equipment outright rather than leases, which is often left as a finance option when buying their trucks.

Although price is important, Burklund said it’s not everything. "We look for durability, quality of cut, the speed of equipment, safety features and operator comfort," he says.

World of Green’s record speaks for itself as far as safety is concerned. As of the end of November, Burklund says his company has gone 594 days without a loss-time incident. He says new employees endure four hours of safety training before they start work, another day of hands-on training as soon as they start and then are under direct supervision for the next couple of weeks after that. He also employs management safety and employee safety personnel who make sure all safety measures are continually being met.

"If you don’t put your guys in dangerous situations in the first place, you don’t have any problems," says Burklund.

According to Dick Kilgas of Kubota, manufacturer of riders equipped with either out-front or mid-mount deck designs, "products that are designed to be better, stronger and more versatile typically last longer. Therefore, the business can amortize over a longer time so they don’t have to purchase equipment as often. This also adds to their bottom line."

W. Dick Tegtmeier, president and CEO of Encore, Beatrice, NE, which manufactures commercial riding mowers, says "in almost all cases, developing lower-end products to meet a lower cost is not synonymous with stronger, longer-lasting products."

"We, as manufacturers, are squeezed to a margin that is almost embarrassing," says Tegtmeier, who has been in the industry for more than 25 years. "A 36-in. walk-behind that cost $350 then still costs that much today despite increases in labor, material costs and horsepower."

"If contractors want it to be stronger and last longer, it’s going to cost more for the end users," adds Tegtmeier.

According to Bill Shea, vice president of sales at Ferris Industries in Munnsville, PA, commercial cutters must understand there are services attached to the price of the product.

"A machine may cost more at a dealer, but how much time will the contractor lose if a part isn’t available, which is typical when purchases are made at big box stores?" says Shea.

Peter Whurr, vice president of product management at Textron Golf and Turf Specialty Products in Racine, WI, says it’s also important for contractors to understand that a lack of "creature comforts" doesn’t equate to lack of quality.

"The real test of a product is the value it presents to the end user at the end of the day," says Whurr.

So is it a matter of what a contractor is willing go give up? Whurr explains. "If you look at ride-on mowers and the zero-turn radius mowers, can you forego an electric lift for a manual one, or one fuel-tank instead of two? It’s all a matter of de-features," he says. "We will make a product, whether it’s de-featured or higher-end, of the same quality and longevity."

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Kurt Bienmueller, vice-president and part-owner of Four Square Landscaping Co. in Dallas, TX, says quality, not price, was the issue when he began his business five years ago. “We wanted to get better and larger pieces of equipment to keep crews to a minimum,” says Bienmueller, whose accounts are mostly commercial with 65% of services devoted to maintenance and the rest to design. “We bought mowers that would have a minimum amount of breakdowns and would be easy to repair. Also, their parts had to be easily available, and they had to meet or exceed voluntary safety standards.”

“We also looked at the weight of the equipment so it didn’t wear people down, varna, for example, they offer “credit card/revolving charge plans, deferred financing plans and leasing options.” “We encourage our dealers to consider return on investment when discussing solutions to end users. A solution, then, may sometimes require a greater investment, but the return will also be greater,” says Taylor. “The initial cost of a unit is not the greatest an end user will face. Losses related to a downed unit, productivity, etc. may, in fact, be greater.”

According to Gregg Breningmeyer, marketing manager for commercial mowing at John Deere, Triangle Park, NC, they have found that interest rates have not been an important consideration in a customer’s buying decisions. “What is important is cash flow — how much money is needed as a down payment and how much money it’s going to cost on a monthly basis,” says Breningmeyer.

The value of dealers
In many industries, including the Green Industry, consolidation is an economic fact of life. Consolidation by mower manufacturers is paring down the number of dealers and, therefore, places to get equipment serviced. Manufacturers are responding by either making their dealers stronger, helping them service equipment more profitably or making mowers easier for contractors to fix themselves.

“We’re consistently selling our product through the dealer channel only — avoiding the temptation of internet
"It’s also important to belong to ALCA and some of the other landscape organizations out there to see what their members are using and what conclusions they have drawn about a particular piece of equipment."

— Bienmueller

and whether or not it was self-propelled,” he adds. “We looked at the deck to see if it floated and how accessible it would be to change a belt or a blade.”

Bienmueller says a lot of his equipment purchases are based on what his crew members are telling him. “I’ll try out a piece of equipment in the field and get input from my guys. We have a very close relationship with our employees, so we make our decisions as a family.”

For mowing, Bienmueller uses walk-behind for turf and “around-a-pool” areas, riding mowers for open cutting areas and push and hand mowers for up-close work around decorative islands.

For mowing, Bienmueller uses walk-behind for turf and “around-a-pool” areas, riding mowers for open cutting areas and push and hand mowers for up-close work around decorative islands.

The right equipment has been only one factor in the 35% a year growth rate of Bienmueller’s business. Doing a quality job with that equipment, he says, advertises itself. “Dallas is a very competitive marketplace,” he says. “Still, word-of-mouth has grown our business tremendously.”

“How well you take care of your customers and your employees is what counts, too,” he adds.

Communication, Bienmueller says, is key in making sure crew members aren’t putting themselves in dangerous situations. “We’re in touch constantly with our employees,” Bienmueller says. “I make sure I see them throughout the day.”

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“Manufacturers must work with dealers to help them understand that service is a key factor to continued business success. While we are working to build equipment that will require less daily maintenance, dealer training is essential.”
— Dilger

**To mulch or not to mulch**
Mulching is a hot subject among professional landscapers these days. According to Cuddihe, Great Dane is testing new designs so their customers have the best mulching capabilities available.

“We don’t believe mulching has been perfected yet, but we think our mulch systems are the best there are,” says Cuddihe.

Kilgas says many people have a misconception of mulching. “Yes, it’s good for the soil and grass. However, most people want things done right now — they don’t want the job to take any longer than it would if they were to use a side discharge mower,” Kilgas says. “The only way to improve the mulching system is to provide a secondary chamber where the mulching process takes place.”

Cloutier has his own ideas about the perfect mulching system. “It’s not just closing off your discharge chute,” he says. “It truly is a system of combining flow control baffles with the placement of mulching baffles, mulching blades and discharge cover.”

**The safety factor**
Breningmeyer says watching a contractor disconnect the safety switch in a seat makes him cringe.

“Safety is of paramount importance with us,” he says. “It costs more money to test and make sure products meet certain safety requirements which are voluntary, and few of our competitors meet that standard. Maybe they don’t think they can compete from a financial standpoint and consider themselves suitproof.”

Whurr says manufacturers need to pay more attention to legislation as it relates to noise pollution and alternative fuel systems. “We have to make sure we design our products to meet the various standards of the marketplace today.”

“We believe professional landscape contractors are also concerned about safety, and while everyone wants to go faster, safety is foremost,” adds Cuddihe.
Country clippin'
Country Clipper's zero-turn mower Zeton comes with either a joystick or conventional twin stick steering. Seven spindles and cutting width of 12 ft.; 9180RD with nine spindles and cutting width of 15 ft.; and 9204RD with nine spindles and cutting width of 17 ft. Mowers can cut up to 8.8 acres per hour. For more information, contact Woods Equipment Co. at 815/381-6028 / Circle no. 272

Get a load of this
Walker Manufacturing Co.'s loader bucket attachment works with the Quick-Change Implement Hitch System on the Walker tractor. It lifts 180 lbs. and 2-1/4-cu. ft. of material with 14-in. ground clearance. For more information, contact Walker at 970/221-5614 / Circle no. 273

Cut everything
Woods Equipment Co.'s new BrushBull line of single spindle cutters are available in cutting widths of 48 to 84 in. The series includes rotary cutters, standard-duty utility cutters, medium-duty machines for mowing brush and heavy-duty cutters. For more information, contact Woods Equipment Co. at 815/381-6028 / Circle no. 275

Cut wide and fast
Woods Equipment Co.'s rear discharge Turf Batwing line features three models — 7144RD with.

Stable ride
Husqvarna's zero-turn ZTH6125 mowers feature a unibody frame for a low center of gravity and wide wheel stance for stability. Exactly 19 cutting heights fit any application need. The 52- and 61-in. decks offer 1.5- to 6-in. height in 1/4-in. increments. Maximum ground speed is 10 mph and fuel capacity is 11.4 gallons. They feature air-cooled, liquid-cooled and fuel injection engines. An optional foot assist lift mechanism lessens the effort of raising the deck over curbs or changing cutting height options. For more information contact Husqvarna at 704/597-5000 or www.husqvarna.com / Circle No. 274

Less noise
New Holland's MC Series commercial mowers feature diesel engines that are isolation-mounted and have under-hood exhaust for quiet, vibration-free operation. They also have a large, unobstructed platform with lots of leg room. A full suspension seat with weight adjustment is standard equipment. The steering column has telescopic adjustment to accommodate operators of all sizes. Cup holder and auxiliary power socket for cell phone are standard. For more information contact New Holland at 888/290-7377 or www.newholland.com/na / Circle No. 277
Smooth ride
Great Dane Super Surfer mowers feature a spring loaded platform set forward of the drive wheels to reduce bumps and jars. They also provide comfort and security to the operator during zero turning maneuvers due to the platform's position. They come available in cutting widths from 36 in. to 61 in. and engine sizes from 15 hp to 23 hp. For more information contact Great Dane Power Equipment, Inc. at 812/218-7100 / Circle no. 278

Brush up
The Swisher 44-in. Trailcutter is designed for clearing brush from overgrown fields, roadsides, fences and trails. It features a 10.5 hp engine, heavy duty swinging lines and trails. It features a 10.5 hp engine, heavy duty swinging lines and trails. For more information contact Swisher, Inc. at 660/747-8183 or www.swisher-inc.com / Circle no. 279

Making the cut
John Deere's 1400 Series front mowers feature gas or diesel liquid-cooled Yanmar engines from 28-hp to 31-hp. A 14.5-gal. fuel tank allows for all-day mowing. The air intake system allows air to enter from the rear and side of the mower for lower sound levels at the operator station and less debris buildup. Available are 60- and 72-in. 7-iron side-discharge mower decks. A 20-in. turning radius to the trim side leaves only a 28-in. uncut circle of grass. For more information contact John Deere at 800/537-8233 or www.johndeere.com / Circle no. 280

Zip in a Z
Exmark Manufacturing's XP series of Lazer Z riding mowers features 27-hp liquid-cooled diesels or 31-hp liquid-cooled gas models. Each model is available with either a 60-in. UltraCut deck that mows up to six acres per hour or the 72-in. UltraCut deck that mows up to seven acres per hour. Ground speed is 11 mph forward and 7 mph in reverse. For more information contact Exmark Mfg. Co., Inc. at 402/223-6300 or www.exmark.com / Circle No. 281

Nice blades
The Gravely 260Z comes equipped with stay-sharp Tungsten carbidecoated blades, maintenance-free Gravely XL spindles and a two-year limited commercial warranty. It's manufactured with either a Kohler Command OHV 25 hp engine or 25 hp Kawasaki engine. The airflow deck's cutting chamber expels clippings faster using a 21-in.-wide discharge tunnel. For more information contact the Ariens Co. at 800/678-5443 or www.gravely.com / Circle no. 282

No fixin' a Dixon
Dixon Industries Inc.'s ZTR® 8000 Series commercial mower features a 25-hp Kohler Command or 26.5-hp Briggs & Stratton-Daihatsu engine; white wheel motors and Hydro-Gear® BDU pumps; 60- or 72-in. cutting widths; "big rig" seat suspension and fully-adjustable seat; speed up to 10 mph; 11-1/2-gal. fuel capacity; and 1-in. front caster wheel. Attachments include broom, grass blower and catcher, snow blade, snow blower and carryall rack. All mount to mower with automatic-type receiver hitch. For more information contact Dixon Industries, Inc. at 800/264-6075 or www.dixon-ztr.com / Circle no. 285

Endearing steering
Textron's Bob-Cat ZT 200 Series now includes a 20-hp Yanmar diesel engine. The liquid-cooled ZT 220D provides up to twice the reliability and fuel economy of gas engines. The ZT 200 Series offers a 19- or 23-hp Kawasaki V-Twin engine and a 25-hp Kohler Command engine. The mowers feature lever-type steering that controls independent power to each wheel. The hydrostatic drive enables the machine to reach speeds up to 8 mph. For more information contact Textron at 262/637-6711 or www.textron.com / Circle no. 286

Easy does it
Rich Manufacturing, Inc.'s Convertible features easy-access controls and a spring-loaded seat that can be adjusted forward and back. The platform is designed for easy mounting and dismounting. Its mower deck is made of 10-gauge steel, welded not stamped with a curve trimming edge to prevent deck damage. The deck lift system allows for seven different height positions. For more information contact Rich Manufacturing, Inc. at 765/436-2744 / Circle no. 287