

be the green's fault.



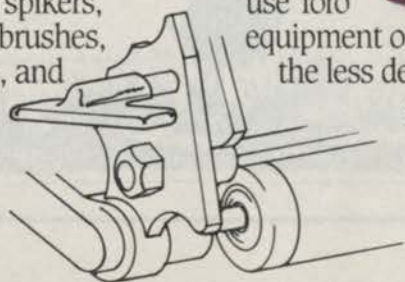
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Circle No. 182 on Reader Inquiry Card

# LANDSCAPE LOG

by the Editorial Advisory Board, Weeds Trees & Turf

## The gun sounds in April

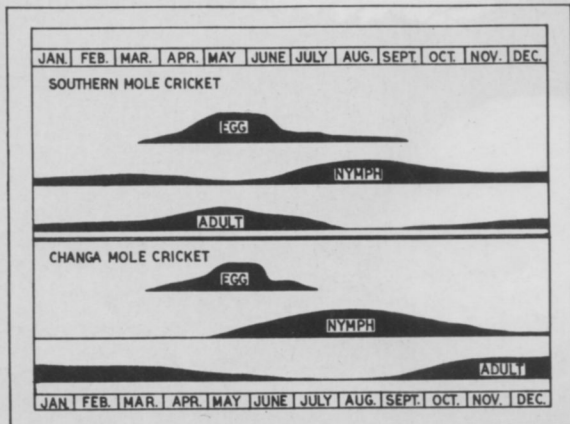
The gun sounds in April for nearly every landscape manager in North America.

**Southern landscape managers** say so long to ryegrass and hello to bermuda, centipede, St. Augustine, and bahiagrass.

April is one of the driest times of the year in Florida says Bruce Augustin. Irregularities in irrigation become evident and are sometimes confused as insect problems.

Mole crickets and chinchbugs are actively causing damage to turf. Contact insecticides, such as Mocap, Orthene, and Oftanol are useful for mole cricket control. Augustin recommends only curative control for chinchbugs with Dursban. Where resistance is recognized, switch to Pydrin or Baygon.

Golf course superintendents have begun



**Mole cricket adults** are active in April. Adults controlled early in April or late March will be prevented from laying eggs.

postemergence weed control and aeration programs.

Southern home lawns should be verticut if thatchy in April. Augustin recommends delaying herbicide applications until later in the month, but fertilizer should go down early in the month (feed first, weed later after grass is actively growing).

**In the Northeast** after crocuses break through the frosty ground, forsythia and redbud blossom, and spring rains arrive, turf diseases, including leaf spot, stripe smut, and red thread become active.

Preemergence herbicides should be down, unless major reseeding is planned. Fertilizer and soil amendments can be applied to correct pH, soil texture, and nutrient levels. Iron has become a popular soil amendment lately.

White grubs, chinchbugs, billbugs, and black turfgrass ateniens controls should be applied where these insects were a problem last year.

Trees are breaking dormancy. They should be in place with perhaps a final pruning to remove winter damage made obvious by lack of buds or foliage. Trees and shrubs should be fed after flowering.

Preventative treatments for apple scab, fire blight, anthracnose, and leaf spot should be made where a problem. In areas where buds have not broken, a final oil spray for scale is possible.

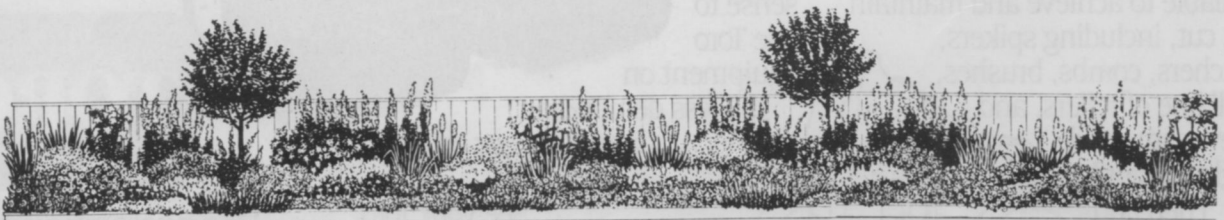
Forsythia and other early bloomers can be pruned back after flowering for shape and size. Rhododendron should be fertilized with an acidic fertilizer. Mulched areas should be cleaned up and dead and possibly diseased twigs and foliage removed. Renew mulch to two-inch depth.

**In the Great Plains** Bob Shearman recommends aeration and irrigation system testing. Final equipment checks should be made and the replacement part inventory replenished.

In late April, bluegrass billbugs become active. Treat where necessary. Fertilize turf if not fertilized late last fall. Begin broadleaf herbicide applications late in the month after preemergence crabgrass and spurge control early in the month. Leaf spot, melting out, and stripe smut diseases may require treatment.

Ornamentals susceptible to fire blight should receive streptomycin sulfate applications as they bloom. In late April, pines may require fungicide treatments for Diplodia tip blight and sycamores for anthracnose. Apple scab treatments should begin in April.

Editorial Advisory Board members are: **Bruce J. Augustin**, extension turf and water specialist, University of Florida, Fort Lauderdale FL; **Douglas Chapman**, horticulturist/director, Dow Gardens, Midland, MI; **Kent Kurtz**, professor of horticulture, California Polytechnic Institute, Pomona, CA; **Harry Niemczyk**, professor of entomology, Ohio State University, Wooster, OH; **Martin Petrovic**, assistant professor of turfgrass science, Cornell University, Ithaca, NY; and **Robert Shearman**, associate professor of turf, University of Nebraska, Lincoln, NE.





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Circle No. 143 on Reader Inquiry Card

MARCH 1985/WEEDS TREES & TURF 23

Sales of tractors under 40 horsepower shine in an otherwise cloudy market, making landscapers and sundown farmers attractive to dealers and manufacturers.

# The Bright Spot Of the Tractor World

by Ron Hall, assistant editor

**G**ood news in the tractor industry, particularly for consumers, is the new generation mid-sized tractor which is finally gaining the recognition it deserves.

It may be one of the best equipment bargains on the market.

In spite of its compact size, this muscular rugged brute can bite off big jobs in all phases of the Green Industry. The availability of long lasting diesel engines, 4-wheel drive and other features such as power steering previously found only on larger agricultural tractors make this a different tractor than the small workhorse of dad's day.

"What we like to emphasize in this size tractor is the value of the product in terms of its purchase price," Tom O'Connor of Bolens says. "These tractors are very well built, their life expectancy is extremely long, and the customer is recognizing that they're a better value for his dollar."

Sales figures support O'Connor.

While sales of its bigger agricultural cousins have yet to climb out of the doldrums, sales of compact and mid-sized tractors have been on the rise. Moving 41,967 units in 1982, under-40

hp tractor sales increased to 45,595 in 1983 and to 47,689 through November of 1984. Sales of these smaller tractors now account for about 40 percent of all tractors sold, according to figures compiled by the Farm and Industrial Equipment Institute.

Manufacturers now provide tractors in an almost unbelievable variety of hp, filling what consumers formerly thought of as a "tractor gap". Much of this activity has been in response to the coming of age of the so-called "sundown farmers", professionals with four or five acres in suburbia and time to putter with them. Or as Bill Templeton, vice president sales of Kubota, notes: "Manufacturers didn't listen very well to their dealers. Now they are."

## Super machines?

Larger than a lawn or garden tractor, the utility tractor offers automotive-type features for comfort and is a time saver for a bewildering number of grounds maintenance and landscaping tasks. The base price of these mid-sized tractors starts at about \$5,500 (not much more than a hefty garden

tractor with gingerbread) and goes up depending on the horsepower and model. A tiller may cost \$1,500, a rear-mount mower \$1,500, and a front loader another \$2,000.

"These small ag-type tractors are just the thing if a guy wants a workhorse. They ain't no tinker toys," says Mike Young, parks and maintenance supervisor for Toledo, OH. "They can be the backbone of your operation."

Their versatility lies in the number of jobs they perform. That means attachments, many of which can be made operational in just minutes thanks to the universal Category One 3-point hitch. That's what separates them from the smaller garden tractor. The just as easily engaged spline-shafted Power Take Off (PTO) units—several manufacturers are now even offering mid-tractor PTO—allow the use of attachments from independent equipment manufacturers.

Tractor manufacturers and independent equipment concerns offer a full line of accessories for mowing (belly mounts, flail, gang reel, rear rotaries), plows, cultivators, disk harrows, and rotary tillers. Add front loaders, backhoes, posthole diggers, trenchers, wood chippers, log splitters, snow blowers, and snow blades, and you've got a working machine. Manufacturers continue to fine tune their offerings.

But if versatility is the utility tractor's number one attraction, performance is its bread and butter. "Customers are looking for the three 'P's' when it comes to equipment," a veteran lawn and garden equipment rep notes. "First comes performance, then parts and service, and then price. If the performance is there, and you can back him with parts and service, he won't mind spending a little more. Price isn't a customer's first consideration. It's downtime. He hates to pay for that downtime."

Performance is what Young was



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Circle No. 167 on Reader Inquiry Card

# Time For a Comeback?

## Walk-behind tractors—more versatile than a mule and not nearly as stubborn

by Ron Hall, assistant editor

Gramps loved his mules. They were working animals.

When he wasn't following behind them yanking timber from the hillsides at his southeastern Kentucky homestead, he was churning the rich bottomland along the Big Sandy, barking "gee" and "haa" to get the stubborn critters to go

where he wanted. Gramps' and his mules are long gone but mules of a different sort, two-wheeled mules, might still be the answer to a surprising number of commercial grounds maintenance or landscaping jobs.

The walk-behind tractor, today's mule,

is available in diesel or gasoline and it doesn't depend exclusively on pulling power to get the job done. Power-take-off units working off 8 to 15 hp commercially tough engines and an expanding assortment of attachments give these beasts versatility.

Considering the walk-behind tractor exclusively as a garden machine might not be giving it the credit its due.

Quick fitting attachments can turn it into a tiller, mower (sickle bar, rotary or flail), wood splitter, sprayer, snow blower, grinder or shredder, sweeper, and even a pump. What makes these machines even more attractive for commercial users is their maneuverability. They can almost be turned on a spot and work between rows as close as 22 inches apart, two-wheelers offered

by Mainline, London, OH, as close as 14 inches. In mowing, these tractors can be taken right up under trees and around posts.

"It's very maneuverable with its individual turning brakes," Jim Roberts, operator of Professional Landscaping in Long Beach, CA, reports of his walk-behind Ferrari tractor. "I use it for rotary tilling and grading. My speciality is residential and it's ideal for what I use it for." Roberts reports he can till a customer's 1,500 sq. ft. property in about 30 minutes.

Also, on some models the handlebars swing 180 degrees. That means you can use ground-turning attachments behind the wheels and then make a few adjustments and use mowers, brushes, snow blowers, or brushes in front of them.

"That's the beauty of these machines," Larry Phillips of Phillips Equipment in Minneapolis notes. "It is cheaper for a customer to have a single machine with attachments to garden and do all the other things that have to be done rather than buying a bunch of separate pieces of equipment."

### Two-wheelers

It wasn't too many years ago that two-wheel tractors were commonplace on small farms and there was a number of American manufacturers. The walk behinds gave way to riding tractors, however, and now only two American companies manufacture commercial-sized two wheelers. Farmers and vineyard workers walking behind tractors remain a common sight in Europe, however, specifically Italy where many of the products in the U.S. market are manufactured.

Paul Sullivan of Mainline, supplier of a complete line of Italian-manufactured Mainline products, says there are more than a dozen two-wheel tractor manufacturers in Italy and competition to build efficient durable machines is intense. "A farmer might work his entire life on the same five-acre plot and he'll work them with a walk behind. He expects that machine to last a lifetime," Sullivan says.

Durability is high on any user's list and Jim Palmer of Louisville is a good example. He uses a 33-year-

old American-made Gravely to turn more than 170 customer gardens each season, a 12-year-old Gravely ("my new tractor") with a 40-inch deck mower for brush cutting along the river-front properties of exclusive Louisville-area homes. "This guy asked me to cut a seven-acre lot; it hadn't been cut for four years," Palmer reports. "There were saplings and weeds in that field six or seven feet high and he thought it was a joke when I started mowing. But I cut it down. I haven't been able to tear these things (tractors) up."

### Versatility saves money

While the two wheelers aren't cheap (\$1,500 is a starting point for a smaller model with rotary tiller) they could offer savings in the long run because of their versatility. With a choice of about 20 attachments these tractors can be used for seed bed preparation in the spring, mowing in the summer, and snow removal in the winter. Sulkies are available if you want to ride and trailers for material transportation.

Bill Waggener of Professional Grounds Maintenance, Atlanta, uses his 8 hp B.C.S. primarily for breaking ground and mixing soil in planter beds, but he intends to put a sulky and trailer behind it this summer to move materials at an office complex. "I've got to move a lot of supplies on site without tearing up the roadways," he says. "The speed is fast enough and it's powerful enough to get somewhere without spending all day."

Many an oldtimer would have been happy to trade in his mules for a single machine that could do as much as a modern two wheel tractor. And he wouldn't have minded a little walking either. □

### Manufacturers

B.C.S. Mosa Inc., 1107 L Cordage St., P.O. Box 7620, Charlotte, NC 28217  
Ferrari, P.O. Box 5, 116 Paoli St., Verona, WI 53593

Garden Way Manufacturing, 102nd St. and 9th Ave., Troy, NY 12180

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Its uses are numerous. LIMIT can be used on nonresidential sites such as cemeteries, parks, office and shopping centers, golf course roughs, industrial parks, institutional grounds, airports, and roadsides.

## LIMIT can save valuable time.

LIMIT can be used in numerous ways to cut back on valuable labor hours... on broad expanses of low-traffic turf such as golf course roughs, campuses or institutional grounds and industrial parks as well as smaller, hard-to-mow areas where obstacles such as trees, shrubs or monuments are present.

Regardless of the turf, reduced growth rate reduces the urgency to mow and frees-up labor to take care of the multitude of jobs required to maintain your grounds.

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High-grade slopes, ravines and hills present tremendous mowing risks to both people and machinery. When you apply LIMIT to these difficult and dangerous areas you'll help cut these risks by reducing the need to mow. (And you can make these kinds of applications without fear of leaching.) You'll also save wear and tear on equipment and possible costly repairs that may occur from accidents. Not to mention the liabilities of personal injury.





# Put cutting, save labor your work force.

## LIMIT is versatile and easy to use.

Your options are open. LIMIT can be used with either water or fluid based fertilizers and in conjunction with commonly used turf herbicides.

Your choice of application equipment is also flexible permitting you to use the best method to fit varying needs. In fact, you can apply LIMIT with standard equipment used for other pesticides, including: multi-nozzle spray booms, single-nozzle Floodjets\* or Teejets,\* backpacks, hand-pumps or wheel-pump sprayers.

To apply LIMIT, you need no special skills or training. (Just follow standard procedures and precautions as directed by the label.) Application can be overlapped without quality loss or uneven growth... which makes it easy to treat landscaped or irregular-shaped areas where overlapping would be impossible to avoid.

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## LIMIT is weather-proof.

LIMIT goes to work as it is taken up by the plant's roots and moves upward in the plant to the growing points where it slows down the growth. No longer do you have to treat your turf with one eye on the clouds and an ear to the weather report. Moderate rainfall or sprinkling will actually enhance its performance. In fact, turf managers have applied LIMIT in moderate rain and capitalized on wet spring weather to reduce turf growth later on.

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looking for when the City of Toledo, plagued with high operating and maintenance costs, replaced much of its equipment with a two-pronged program (smaller hydraulic reel mowers and a fleet of small 4-wheel-drive diesel tractors) about three years ago.

"We wanted to downsize as much as we could," Young explains. "By going with the 4-wheel drive Kubota's we could downsize our equipment."

Kubota is the leading marketer of compact diesel tractors in the U.S., third in tractor sales of all sizes. When the first Japanese-built tractors made their appearance in the U.S. the seats were too small for American fannies, the pedals too small for American feet. But, the foreign manufacturers ironed out the bugs, and American manufacturers beefed up their lines with their own foreign-built products. Almost all utility tractors under 40 hp are now produced overseas, and users claim they are, regardless of company, comparably rugged in spite of differences in sales features.

"Everybody has a model that has certain standout features," Bolens' O'Connor says. "The customer just has to pick out the features he wants. The tractors themselves are comparable."

Ford offers full-time live hydraulics as a standard feature on its 1000 Series tractor, while John Deere offers a turbocharged mid-sized tractor, the 1050, and Yanmar can brag up its clutchless shuttle power shift. Other manufacturers offer tractors with their exclusive features.

Several dealers report 4-wheel-drive units are becoming more popular, and while 4-wheel drive may not be for everybody—particularly if mowing lawns is the vehicle's main use—it's almost a must for snow removal. It has been estimated that 4-wheel drive gives a tractor 35 percent more pulling power which might be a bargain considering it adds only about seven percent to its cost.

The City of Toledo's Young is part of the growing diesel trend also.

"Two things scare people about diesel—maintenance and costs," Young says. "They think they'll have to have a diesel mechanic, and diesels cost more initially, about \$800 to \$1000 more per engine. But within 2½ years we've paid for the engine in fuel savings alone. As far as mechanical work, I can't afford a lot of wrenching, but we figure we're going to get 3,000 to 5,000 hours before we have to go through these engines."

In addition to the Kubotas, Young's crew also uses an International Harvester 284 and an Allis Chalmers 5020, and he's just as enthusiastic about them. "Across the board I think

all of these small tractors are very reliable," he says.

Dennis Hunter, grounds superintendent at Milton Hershey School, Hershey, PA, is eyeing replacements for his aging five-tractor fleet. "I'm leaning more and more to diesel because of economy and maintenance, and I'm thinking about going to even smaller equipment," he says. "I'm getting positive feedback from the people I talk to. I keep in touch with some of the golf course superintendents in this area and they're all happy with these small tractors."

Hunter gets a lot of use from the International Harvesters in his present fleet. Several are equipped with front loaders, one used primarily for pulling an 11-gang reel mower, another for final grading and, equipped with a York rake, for lawn work. He also uses tractors for snow removal and one, equipped with turf tires, for aerating, vericutting, and the fertilization of athletic fields.

Dealers, however, caution downsizing should begin with an accurate appraisal of long range costs, particularly in future labor and tractor maintenance costs. A short-term savings could turn out to be a long-term waste. For instance, a 35 PTO hp vehicle with a Woods RM90 rear-mount mower cuts a 7½ ft.-swath and can handle about 4½ acres per hour. A smaller hp tractor with a 5-foot belly mount takes a much longer time to mow the same amount of acreage. That, of course, means more wear and tear on the smaller tractor, more fuel, and more manhours behind the wheel.

In Fort Myers, FL, Jack Klipfel, maintenance supervisor at The Landings LTD, reports he uses a Ford 445 with a bucket loader for scraping and general golf course work, while a more muscular Ford 2600 runs a Bush Hog. "We mostly stick with Fords," Klipfel says. "We're real happy with them. We've just had to repair or replace odds and ends. We haven't had to completely rebuild an engine yet."

The sales success of small tractors is the impetus for even more daring offerings, like Jacobsen's new 24-hp diesel-powered G-4X4. Shown to Jacobsen distributors this fall, the G-4X4 features an unusually low center of gravity (the operator sits down in the machine automotive style) and four-wheel steering. With its oversize low-pressure tires, the G-4X4 is targeted for the turf market, but its versatility is being touted. In addition to cutting grass with front-mounted rotary or flail mowers, the G-4X4 can operate a rotary broom and snowthrower as well as a rear-attached spreader. A dozer blade for plowing snow or mov-

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ing materials is also available.

Jacobsen's equally new G-20D grounds and turf tractor is a more traditional design with a 45-hp diesel, while Kubota announces three new tractors, ranging from 21 to 27 PTO hp and all featuring direct-injection engines.

As manufacturers continue to compete by making their products easier to operate with such features as hydrostatic transmissions and cruise control, as well as more fuel efficient and maintenance free, the consumer only stands to benefit in his choice of a small workhorse tractor. **WT&T**



NWRC Director Dr. David Northington at the year-old headquarters of the national wildflower center.

## National Wildflower Research Center

# Better Than the Dream

Barely a year-old, the National Wildflower Research Center has big plans for establishing significant wildflower research. Breaking new ground is nothing new to the people behind the project.

by Maureen Hrehocik, managing editor

**D**r. David Northington likens it to staring-down a freight train.

You feel the tracks rumbling and sense the behemoth on the horizon, but it really hasn't come into full view. The momentum, though, is unmistakable.

Northington is not referring to a puffing and grunting hunk of metal. He's referring to the increasing interest in wildflowers—those delicate splotches of color on roadsides and in fields that hardly register their existence with anything but the subconscious.

Yet, we know they're there.

Northington, 40, is executive and research director of the National Wildflower Research Center in Aus-

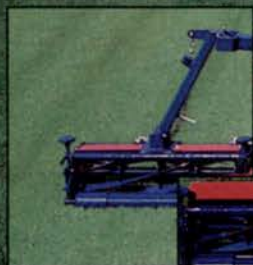
tin, TX. Barely a year old, the organization is surpassing even its own expectations for growth.

Really, it comes as no surprise, though, considering one of the country's most resourceful 71-year-olds is behind the project with capital, and more importantly, with love and an unsurpassed commitment—former First Lady Lady Bird Johnson.

"She is a vision," says Northington. "This Center is her dream. She also has a very practical grasp on things. Her knowledge goes beyond garden clubs.

"There are a lot of 'closet wildflower' lovers out there that we're just finding out about," he continues. "More than you'd ever imagine."

# COMPARE AND YOUR SEARCH IS OVER



7-Gang

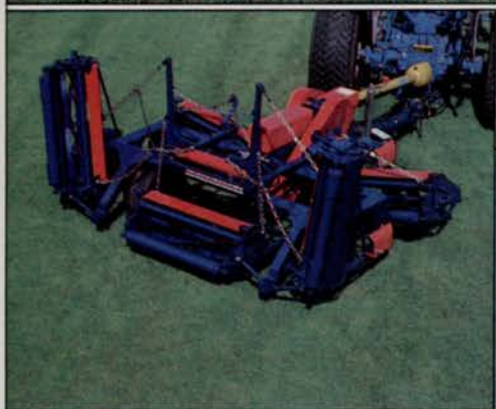


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- Rugged lightweight high-stress steel frame
- Variable reel speeds, independent of travel speed
- P.T.O. driven with proven V-Belt drive system
- Hydraulic or manual lift for easy storage
- Unique pivot design to follow contours
- Highest quality steel reel blades for prolonged life
- Adjustable Jack-wheel for easy one man hook-up and storage
- Terra Tires for maximum flotation

**BROUWER**  
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