

Studies show that Dursban delivers better chinch bug control at lower rates than other insecticides.

suggest you may get better control than you get with insecticide alone.

Knowing exactly when to apply insecticide helps, too. For example, adult black turfgrass aetini

cide gives you so much control at such a low rate. It's available in water-soluble packets. And it can be bio-monitored, which can reduce the likelihood of over-exposure.

Now, we realize you probably

# Once your hate for insects ironment.

first present at the same time the black locust tree blooms. Make your insecticide application then,

and you'll get the most efficient, effective control.

Your insecticide it-

### Why Adults Should Spend Time Catching Bugs.

If you want better results from the insecticide you use, insect traps can help. They allow you to find out when certain pest insects are present and time your insecticide applications accordingly. Insect traps are inexpensive, easy to use, and they'll help you get greater control using less insecticide.



self can also make a difference.

After all, different insecticides work at different rates. Which is why Dursban® insecticide could be your best choice.

Just one pound active ingredient per acre controls chinch bugs, billbugs, sod webworms and a host of other insects. No other insecti-

have some questions. That's why we created The Turf Manager's Guide To Responsible Pest Management. It's 44 pages packed with information on the latest techniques for controlling insects, weeds and turf diseases.

For a free copy, just return the coupon, or call our toll-free telephone number.

Because when you apply a little knowledge, you don't need to apply as much insecticide.

Send me the following Management Guide(s):

- Cool Turf  Warm Turf  
 Landscape and Nursery

Mail To: DowElanco  
Box 3064, Cedar Rapids, IA 52406.  
1-800-729-3693 ext. 2492.

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Zip \_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

**The chemistry is right.™**

Dursban is available in liquid, dry flowable, granular and fertilizer formulations. ® Trademark of DowElanco. ©1992 DowElanco. 05



What you've read on the preceding pages only begins to outline a responsible pest management program.

You'll find a lot more in our guides to responsible pest management (see

coupon on previous page), and in the literature listed below.

If you have questions on our products, call one of our technical specialists at 1-800-352-6776. We'll be happy to help you out.

Because at DowElanco, we believe that when it comes to responsible pest management, knowledge is your most powerful tool.

 **DowElanco**  
The chemistry is right.™

\*Trademark of DowElanco. ©1992 DowElanco

# If we've piqued your interest, keep reading.

The literature below is some of the best information you can get on responsible pest management. Check your state university or write the publisher to find out where it's available.

## SUGGESTED READINGS:

• *Insects That Feed on Trees and Shrubs*

• *Turfgrass Insects of the United States and Canada*

Cornell University Press  
124 Roberts Pl.  
P.O. Box 250  
Ithaca, NY 14851  
607/257-7000

Orders to:  
P.O. Box 6525  
Ithaca, NY 14851  
800-666-2211

• *Lawn Care: A Handbook for Professionals*

• *Turfgrass Management*  
Prentice-Hall, Inc.  
15 Columbus Circle  
New York, NY 10023  
800-922-0579

• *Diseases and Pests of Ornamental Plants*

• *Introduction to Insect Pest Management*  
John Wiley & Sons, Inc.  
605 Third Ave.  
New York, NY 10158-0012  
212/850-6000

Orders to:  
Eastern Distribution Ctr.  
1 Wiley Drive  
Somerset, NJ 08873-1272  
908/469-4400

• *Complete Guide to Pest Control With and Without Chemicals*

• *Nursery and Landscape Weed Control Manual*

Thomson Publications  
P.O. Box 9335  
Fresno, CA 93791  
209/435-2163

• *Turf Management for Golf Courses*

Macmillan Publishing Company Inc.  
866 Third Ave  
New York, NY 10022  
800-257-5755

Orders to:  
Front & Brown Sts.  
Riverside, NJ 08075  
609/461-6500

• *Compendium of Turfgrass Diseases*

American Phytopathology Society  
3340 Pilot Knob Rd.  
Saint Paul, MN 55121-2097  
612/454-7250  
800-328-7560

• *Ornamental Insects: Recommendations for Managing Insects on Shade Trees and Shrubs*

Purdue University  
West Lafayette, IN 47907  
317/494-6794

• *Insect Phenology and Integrated Pest Management*

Journal of Arboriculture  
303 W. University Ave  
Urbana, IL 61801-1745  
217/328-2032

• *1991 Chemical Weed Control in Commercial Nursery & Landscape Plantings*

Ohio University PR.  
Scott Quadrangle  
Athens, OH 45701  
614/593-1155

Orders to: C.U.P. Services  
Box 6525  
Ithaca, NY 14851  
800-666-2211





# Proper tree planting techniques

## Proper planting is the first step in root management.

by Kim D. Coder, Ph.D.,  
University of Georgia



■ Getting shade trees and street trees started correctly is critical to long tree life, easy care and low-cost maintenance.

One way to ensure that trees are planted correctly is to give them plenty of room to grow; don't plant trees in spaces too small for their mature size. The amount of space required varies with soil conditions, site stress levels and species of tree.

Good planting allows a tree to colonize a site and positions tree roots where they can grow well. The soil environment must contain adequate space and essential materials to the roots. Planting is the first step in root management.

**Site selection**—Select the area for planting based on the growth characteristics and biology of the tree species, the size of the area it will occupy when mature, the presence of potentially damaging conditions (like overhead or underground utility lines), and functional and aesthetic design, *in that order*. Thousands of trees die every year when tree biology is an after-thought of the design process.

**Rooting space**—The amount of rooting space needed by a tree depends primar-

ily on its mature size, the expected amount of stress the tree will be under, and management input. Soil texture, aeration of the soil, and the amount of surface area of the soil open to the air are also considerations. Calculate rooting area (see sidebar).

**Planting area treatment**—The planting site should be an area at least 10 times the diameter of the initial root spread or rootball of the tree. The entire planting site should be tilled or spaded as deeply as possible (at least eight inches). On badly compacted sites, sub-soiling, aeration and deep tilling (16 inches) may be required.

Do not incorporate organic materials like peat or manure into the soil; they should be added as mulch. Adding materials that will change soil texture will disrupt soil water movement. Also, do not till or dig in areas where other tree roots already exist.

Test the soil to determine the level of essential elements, pH, and potential productivity. pH should fall between 5.8 and 7.0 for most native trees. Dolomitic limestone can be added to raise pH in highly acidic (low pH) soils. High soil pHs (cement wash areas) lead to elemental shortages.

In areas where rooting is limited and tilling is not possible, it is important to provide as much soil space as the site permits for tree roots. Allow as many square

feet of open soil surface as possible in tree wells, containers, parking lot areas or tree lawns. Ideally, at least 100 sq. ft. of open soil surface is needed for long-lived, healthy trees.

**Hole shape**—The actual planting hole, placed in the middle of the planting site, should have a compacted soil pedestal and steeply-slanted sides.

The rootball should rest on a compacted soil pedestal in the bottom of the hole. This soil pedestal can be compacted with your foot since the roots are going to spread outward, not downward. The pedestal will encourage root spreading.

The tree should be positioned to rest at the same level in the soil as it did in the nursery. You can tell where the old soil level was by looking at the stem base. In heavy textured soils (clays), it is better to plant trees one inch too high than to plant trees one inch too low.

Planting hole sides should never be vertical (straight up and down). They should always be slanted at least 45° from the ground surface. Slanted hole sides



allow and encourage roots to spread out and grow into native soil. In limited rooting areas, slanted hole sides can help prevent the tree from becoming pot-bound in the hole.

**Hole size**—The diameter of the planting hole should be at least three times the diameter of the root ball. The hole must be large enough to allow for proper root growth and distribution. Do not bend or pack roots into too small a hole.

**Tree placement**—Do not put water into the hole before the tree is planted. You should water the root ball heavily after planting.

Remove the tree from all bindings, ties, wires, burlap or wrapping. For larger trees, it is important that you remove all ties and as much of the packaging material as possible.

Do not leave trees in wire baskets or surrounded by any other kind of material or fabric. Any materials left around the tree will disrupt root growth and affect long-term root distribution.

Tree wrap can be used to protect the tree during the planting process. But it should be removed immediately after the planting site is finished.

**Tree planting**—Tree roots should not be exposed to full sunlight and air for more than a few seconds. Immediately upon opening the container or wrapping, use your fingers to gently pull the outer roots away from the rootball.

Gently break up and disrupt the nursery soil around the roots. Place the tree in the hole and carefully backfill with the native soil. Do not add any type of soil amendment or fertilizer to the native soil fill or the hole.

Try to keep the roots in roughly their original orientation. Do not sharply bend, abrade or twist them. Pull apart or cut roots that are closely surrounding or girdling the stem base. Plant trees with their roots spread horizontally, not downward.

Snugly pack the soil around the roots. Eliminate large air pockets but do not tamp or compact the soil. Roots must have close contact with the soil in order to properly function.

After the tree is planted, extensively water the entire planting site to help settle the soil and minimize large air pockets. Extensive watering helps establish connections between the tree and the soil-water system.

—The author is in the Extension Forest Resources Department at the University of Georgia.

## Calculating rooting area

**Step 1:** Use the following chart to estimate what the size of the trunk at 4-1/2 feet above the ground (diameter at breast height, DBH) will be, at the age shown for the expected stress level.

<u>Site stress levels</u>	<u>Est. dia. of tree at age:</u>	<u>Example areas</u>
extreme stress	7 yrs.	downtown, parking lots
moderate stress	15 yrs.	residential streets, intensive use parks
low stress	25 yrs.	yard trees

**Step 2:** Expected DBH (in inches) x 2.0 = side dimension of a square planting space (in feet) or  
Expected DBH (in inches) x 2.25 = diameter of a circular planting space (in feet).

**Example:** A 3-1/2-inch DBH tree in a parking lot would be growing in a very stressful site. Expected diameter (DBH) in seven years is five inches. The amount of rooting space you should provide at planting time for this tree would be a 10 x 10 foot square area (5" DBH x 2.0 = 10 feet) or a 11.25-foot diameter circular area (5" DBH x 2.25 = 11.25).

## Mulch for trees: wide but not deep

■ To get a newly planted tree off to a strong start, put a 3- to 5-inch layer of mulch around its base, says Mark Timmons, a horticultural consultant.

Timmons says work done by Dr. Gary Watson at the Morton Arboretum near Chicago shows that mulched trees develop significantly faster than non-mulched trees under the same conditions. Timmons says the mulch moderates soil temperatures and moisture for the tree roots.

Be careful not to apply the mulch too deeply, but don't worry about making too large a circle of mulch around the tree base.

"The guys that thought up the word dripline didn't do us a favor," says Timmons, explaining that many turf managers make the mistake of thinking almost all of a tree's root system lies within the imaginary circle beneath the tree extending straight down from the circumference of the tree's foliage.

He says that many tree

roots radiate out much further than that, sometimes 2 or 2 1/2 times the height of the tree.

"The root system of a tree is almost always more extensive than the tree canopy," says Timmons.

Another common misconception concerns tree taproots, says Timmons of Mark Timmons & Associates, Louisville. "Most trees as they mature lose what rudimentary tap root that had when they were young," he says.

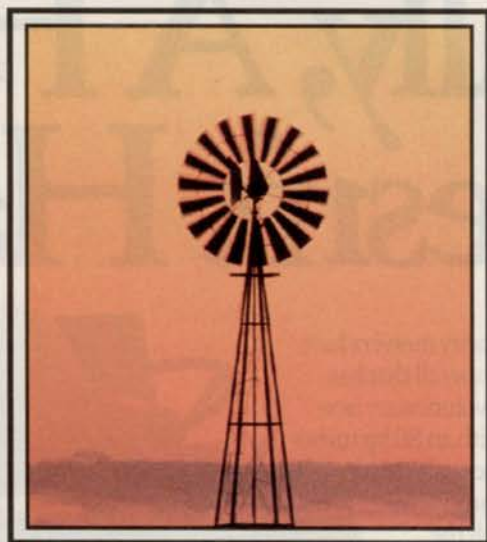
This is particularly true when a tree is growing in heavy clay soil. There isn't much oxygen in these soil, and what little there is is within the top 18 inches of soil.

Timmons, who consults with turf/landscape managers and golf course superintendents in the Midwest, made these comments at the 1992 Golf Course Superintendents Association of American Convention this past February.



**Mark Timmons says tree root systems can be amazingly extensive.**





Granular control for broadleaves.  
Because you never know  
which way  
the wind will blow.

To battle tough broadleaf weeds like dandelion, chickweed, plantain and ground ivy, nothing goes to work like Lebanon granular herbicides. You get even coverage and better control without drifting or leaching through.

Lebanon Dandelion Killer and Lawn Weed Control features time-tested 2,4-D and MCPP post-emergents. And Lebanon Pro 25-4-8 with Trimec® adds Dicamba to take on an even wider range of broadleaves. Plus it saves you time and money with a balanced SCU feeding, perfect for the growing season.

For more information, contact your Lebanon sales representative or local Lebanon Turf Products distributor. Or simply call 1-800-233-0628.



Trimec® is a registered trademark of PBI Gordon Corporation. © 1992 Lebanon Turf Products

# Finally, A High Capacity Mower That Doesn't Handle Like One

For too long, high-capacity mowers have left a lot to be desired. But now all that has changed. Presenting the revolutionary new Groundsmaster® 580-D with an 80 hp turbo-diesel engine. The first large-scale rotary mower that combines the productivity of a 16-foot machine with the handling ease of a smaller mower.



Operating the 580-D is incredibly easy. Only Toro provides an adjustable tilt steering wheel and column. All controls are at the operator's fingertips, even cruise control.

Transport is easy too. An exclusive rotating hinge lowers the outboard cutting units behind the operator for a clear view to the side and rear. A balanced design allows you a stable 20 mph transport speed because the weight of the outboard cutting units is rotated to the rear.



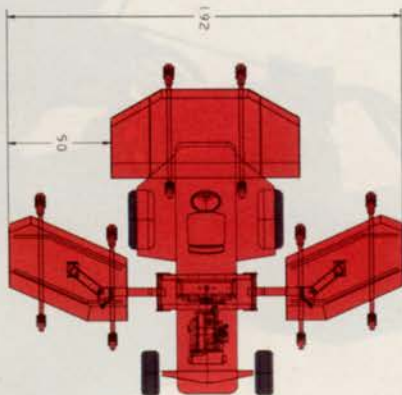
Digital read-outs display vital engine/machine functions at the touch of a button.



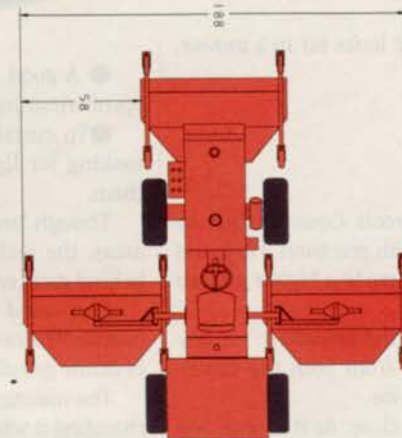
# Capacity Mower That Like A School Bus.



Toro's outboard cutting units also include an exclusive break-away protection feature. Should the operator misjudge distance, the wings will pivot away from the object that has been hit.



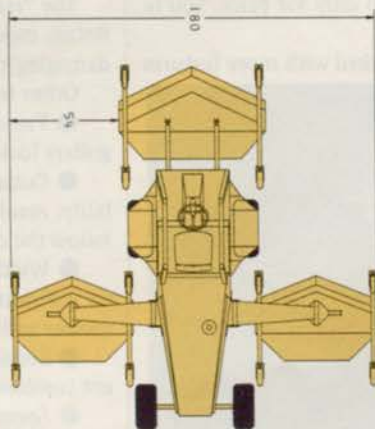
The 580-D's wide stance and short wheelbase give it maneuverability and stability. A short 76" wheelbase lets you turn an 18" uncut circle without braking. And Toro's exclusive swept-forward wing design keeps the tips of the outboard cutting units in line with the front drive wheels improving operator control and visibility.



For even more versatility, the 580-D includes these accessories: an 8-foot front broom attachment, a roll over protection system, a canopy, a cab and a road light package.



Another Toro exclusive allows you to raise one or both of the outboard cutting units inside the traction unit width. The 580-D can then trim between objects less than 8 feet apart with the 92" Triflex® cutting unit.



If you've been sacrificing ease of operation for high capacity, it's time you saw the revolutionary machine that gives you both: the new Groundsmaster 580-D from Toro. Call your local Toro distributor to see the Groundsmaster 580-D or contact Toro at the address below. You'll see firsthand how productive and versatile large-scale turf mowing can be.

**TORO**

The Professionals  
That Keep You Cutting.

# Golf course mowers loaded with features

**Shopping for the right golf course mower can be confusing. Make your mower search easy. Prioritize your needs.**

■ Ask a golf course superintendent what he looks for in a mower, and he'll most likely say:

- 1) quality of cut;
- 2) longevity;
- 3) durability; and
- 4) low maintenance.

Mike Mongan, superintendent of the Arcola Country Club in Paramus, N.J., wanted a mower that cuts with precision. He found one, and credits the unit with taking the course to a higher plateau of professional appearance.

Another important feature won't be found anywhere on any mower you test ride. It's called "service"—from both the dealer and the manufacturer. And finally, there's price.

Price comes last? If not dead last, pretty close. As it is with any important purchase you make, if you shop only for price, you're gonna get burned.

Today's best golf course mowers are packed with more features



Jacobsen's Greens King IV



◀ Toro's Greensmaster 3100

than James Bond's Aston Martin (though we have yet to see a model that comes with oil slicks or machine guns).

● In response to the growing concern over grass clippings disposal, some manufacturers now offer mulching blades, which chop the clippings into virtual non-existence.

● Larger mowers are packed with improvements in the drive train, braking system and hydraulic controls.

● Rotary mowers can also come with large hoppers for catching the clippings.

● A good, responsive rough mower will eliminate extra time spent trimming around trees in rough areas.

● To curtail compaction on greens, more superintendents are looking for lightweight units, and manufacturers are providing them.

Though large gang-reel mowers are often used for large fairway areas, the reel blade does require more maintenance. Most pull-behind gang reels mowers require at least one rebuild each year.

"I've saved \$4000 to \$5000 using rotary mowers in roughs as opposed to reels," says Mongan. "There's no relief grinding and bedknife grinding; and there's no bearing kits or seals to replace."

The maintenance advantage of the rotary blade is in the ease of changing it when it comes time to sharpen.

The "real" advantage to the reel mower is in the quality of cut. Rotary mowers tend to chop at the leaf blade, resulting in a more damaging cut.

Other features to consider:

● Fairway mowers should provide the consistency of cut that golfers look for.

● Cutter decks: better air flow means better vacuuming capability, resulting in a cleaner finish; "floating decks" are designed to follow the contour of the terrain.

● Width of cut and suspension are also important, depending on individual needs; to make the most of your mowing time, get a mower with a deck that's at least 48 inches wide.

● Some cutting units can be operated individually or in different combinations.

● Speed: important, considering the wide areas you'll be cutting.

—Terry McIver





GROUND IVY



OXALIS



CRABGRASS



NUTSEGE



SPURGE



CLOVER

# Dependable, economical post-emerge control

# **Crabgrass, Nutsedge**

## Plus the truly hard-to-control broadleaves

Read how Trimec® Plus, with its unparalleled broad spectrum control, fast action, and gentleness to desirable grass, is helping turf professionals improve their

**environmental stewardship and reduce their chemical costs.**



**Everett Mealman**  
Chairman and  
Chief Executive Officer  
PBI/Gordon Corporation

The environmental age weed control program being used by Roger Albrecht is typical of progressive turf professionals.

Albrecht is president of Nitro-Green Corporation, which has 38 lawn care franchisees scattered over 15 different states, and he manages two locations in California for his own hands-on experience.

"Our goal is to eliminate all broadcast spraying of herbicides on the ornamental turf we manage, and replace it with spot treatment as necessary," says Albrecht. "We want to be pro active on environmental issues and be able to assure our customers that we are using the absolute minimum requirement of chemicals."

Albrecht goes on to explain that such a

program takes time to implement because the turf needs to be so healthy and thick that weeds cannot easily germinate.

"The elimination of the pre-emerge broadcast is the critical step," says Albrecht, "because, no matter what, some crabgrass is going to appear, and since crabgrass is a major cause of complaints, we must be able to eliminate it fast with no discoloration."

Trimec Plus provides the safety net that enables Albrecht to eventually eliminate pre-emerge. "We have absolute confidence in Trimec Plus to handle any crabgrass or nutsedge that shows up," says Albrecht.

And, of course, the same spot sprayer filled with Trimec Plus that Albrecht uses to control crabgrass and nutsedge also controls the other grassy and broadleaf weeds that can germinate throughout the year. "Having one herbicide for all of our spot treatment is a major factor in our program," says Albrecht.

But if Trimec Plus is ideal for spot treatment, it is also unsurpassed for broadcasting when the need exists. Listen to George Toma, the executive turf consultant for the Royals, Chiefs, and NFL:

"My son, Chip, the groundskeeper for the Truman Sports Complex, used a broadcast of Trimec Plus on the out-of-sight, unirrigated perimeters of the complex, which was loaded with every conceivable weed, and

Trimec Plus absolutely took out everything except the bluegrass."

According to Toma, it would have taken four different selective herbicides to do the job that Trimec Plus was able to do . . . but even more important, Toma says that Trimec Plus did a better job on all of the individual species than a narrow spectrum selective could have done.

### What is Trimec® Plus?

Trimec Plus is a unique formulation of Trimec Broadleaf Herbicide and MSMA in a stable, uniform suspension that is as easy to work with as any other Trimec Complex.

By all means give Trimec Plus a trial this season . . . especially on crabgrass, nutsedge, and clover. We assure you that your experience with Trimec Plus will give you the confidence you need to start working toward the elimination of broadcasting.



1217 West 12th Street  
P.O. Box 4090  
Kansas City, MO 64101  
816-421-4070

# TRIMEC® PLUS

Trimec® is a registered trademark of PBI/Gordon Corporation.

© PBI/Gordon Corporation, 1992

HERBICIDE 758-292



# GOLF COURSE MOWERS\*

## REEL MOWERS

Manufacturer	Model	Engine	Width	Cutting Height	Cutting Accessories	Circle No.
Brouwer	5 & 7-gang	PTO	138"/192"	3/4"-3 1/4"	Hydraulic lift to raise mowing units	300
Bunton	5-gang fairway mower	Onan 20-hp or Kubota 22-hp	100"	1/4"-3/4"	Outboard reels raise and lock	301
John Deere & Co.	305 Hydraulic	540 RPM PTO	142"	3/8"-2 3/8"	Grooved front rollers; rear rollers/scrapers	302
	3325 (5-gang)	Yanmar diesel 38-hp	138"	3/8"-3"		303
Jacobsen Kubota	LF-100	Kubota D950, 3-cyl.	100"	1/4"-3/4"	Fairway turf groomer	304
	Verti-Reel	L3250F tractor	15' 6"	3/8"-3"	Hand-adjustable bed knife	305
Lesco National	5-7 gang reels		11' 2"			
	500D	Kubota diesel; 22-hp	100"	1/4"-1 3/8"	6-, 8- or 9-blade reels	306
	Triplex 84	Briggs & Stratton Vanguard	84"	1/2"-2"	Optional winch to raise reels	307
Ransomes	220 M28-4WD	Kubota 3-cyl; 28-hp	84"	1/2"-2"	Hydrostatic drive for automatic positive braking	308
Toro	Reelmaster 223-D	Mitsubishi diesel	95"	1/4"-5/8"	Five or eight cutting units	309

## ROTARY MOWERS

Manufacturer	Model	Engine	Width	Cutting Height	Cutting Accessories	Circle No.
Bunton	Hydrostat	Briggs & Stratton 18-hp Vanguard	61"	1"-4"	Instant forward/reverse	310
Jl Case	60MS	Mid-PTO drive	60"	1 1/2"-4"	Three blade spindles	311
Cushman	Model 810	Kubota diesel, 3-cyl.	60"-72"	1"-4 1/2"	All-hydraulic drive	312
John Deere & Co.	F915; F932; F935	Yanmar 17-28 hp	60"-76" decks	1 1/2"-4"; 1"-6"	Anti-scalp rollers	313
Dixon	ZTR 503 HG	Kohler 20-hp	50"	1 1/2"-4 1/2"	Hydrostatic/hydro gear	314
Encore	Pro-Line 48/60	Briggs/Kawasaki/Kohler/Honda	48"-60"	1"-4"	3 cutting blades	315
Excel	Hustler out-fronts	Gear box spiral bevbel gears	60"-72"	1"-5"	Range Wing attachment cuts a 12' swath	316
Exmark	Turf Tracer 5-spd.	Kawasaki 14-hp or Kohler 18-hp	52" or 60"	1 1/2"-4 1/2"	Five-speed transmission	317
Ferris	H1618B	Vanguard 17-hp	48"-52"	1 1/2"-4"	Patented electric lift	318
Ford New Holland	CM224/CM274	Liquid-cooled diesel	60"/72"	1 1/2"-4 1/2"	Independent brakes	319
Grasshopper	700 Series	Briggs & Stratton; Kohler; Onan	48"-72"	1"-5"	Dual hydrostatic direct drive	320
Gravely	Pro Master-G	Kohler, 20-hp	50"-60"	1 1/4"-4 3/4"	Filtered hydraulic reservoir	321
Honda	HRC7013ZXA	Honda 13-hp	36"-48"	1 1/2"-5 1/2"	Twin hydraulic drive pump and motor system	322
Howard Price	Turf Blazer 1260	Yanmar Diesel	72"	1"-5"	Four-wheel drive optional	323
Jacobsen	HR-5111	Kubota 4-cyl.	134"	1"-5 1/2"	Hydrostatic transmission	324
Kubota	FZ2100	Kubota 20-hp	54"-60"	1"-4"	Zero Diameter Turn; auto assist differential	325
Lesco	52" Commercial	Kohler Magnum 20-hp	52"	1"-4 1/2"	Dual articulating decks	326
M & W Gear	Lawn Clipper	Briggs & Stratton Kohler	42"-62"	1"-4"	11-bushel hopper	327
Ransomes	XT6150	Kubota diesel 51-hp	61"-117"	1"-4 3/4"	Tilt-wheel, hydrostatic steering	328
Simplicity	CFC Series	Briggs & Stratton Vanguard or Kohler Magnum	46"-66"	1"-4"	Dual hydrostatic infinitely variable transmission	329
Steiner	Model 425 Super w/MD472 deck	Onan 24-hp	Deck: 72"	1"-4"	3-blade rotary mower	330
Toro	Gr'ndsm'ster 455-D	Peugeot 4-cyl.	54"/90"/126"	1"-5"	Patented Traction Plus weight transfer system	331
Woods	5250	Kubota 24.5-hp	52"	1"-4"	Dynamic braking; hydrostatic transmission	332

## GREENS MOWERS

Manufacturer	Model	Engine	Width	Cutting Height	Cutting Accessories	Circle No.
Bunton	Walk-Behind	Wisc. Robin 3.5-hp	22"-26"	5/32"-13/32"	Powered rotary brush	333
Jacobsen	Greens King IV	Kohler 16-hp gas	62"	3/16"-7/16"	1/8" cut with low profile bedknife attachment	334
John Deere & Co.	2243	Kubota 16.5-hp diesel	22"	3/32"-3/4"	Hydrostatic transmission	335
Ransomes	Greens 3000D	Kawasaki FD 590V	22 3/4"	1/8"-1/2"	Hydrostatic braking	336
Toro	Gr'nsmaster 3100	Kubota twin cylinder Vanguard V-59"	59"	1/8"-3/4"	Turf Guardian leak detector	337
Lesco	300/300D	Twin cylinder Kohler Magnum 18-hp	60 3/4"	1/8"-1 1/16"	Reversible hydraulics, cutting units can be back-lapped	338

\*Models are representative of company products; other models may be available.