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# Palm Beach Trade Winds



by: Michael J. Bailey  
Boca Greens Country Club

A surface that is a surface, is a surface... Right? In sports, whether the surface is asphalt, clay, wood, astroturf, or turf... a surface is a surface. Right? Wrong! In basically all sports a surface is a surface, except in the game of golf, where there are no two surfaces alike. Not even within the front to the back of the very same green.

Considering the game of golf possesses so many variables, what is the one common element that all golfers can relate to when comparing golf courses throughout the world? The answer: Putting green speed quality. All golfers have a sense for putting green speed, whether the golfer feels the green to be like concrete or a shag carpet. A somewhat desired putting green speed quality can be achieved, whatever our handicap, as we all can appreciate an excellent putting surface.

Within the topic of good putting green speed quality, the variables start to surface. Factors such as turfgrass species, variety, geographic location, weather, time of day, soil and moisture content, fertility, topdressing, etc... etc...., can determine putting green speed quality. What is the most evident of all factors? Answer: Height of cut and means of cutting. Researchers have many conclusion for achieving that ultimate speed quality; however, of all the comparisons and analogies, what is perhaps the key element toward high quality? Answer: Type of machine employed for mowing. It is at this point, the chairs start to squirm, as we all have strong feelings on the pros and cons of walk and triplex greens mowers.

I believe we will all basically agree that a walk mower will ultimately achieve a better putting green surface in comparison to a triplex mower because of the very simple agronomic fact that an excellent, high quality "fast" putting green surface will obviously be mowed at tournament specifications, with stimp meter readings averaging 10 feet. This fact alone creates excessive stress to the turfgrass plant, by which only the delicacy of a walk mower will thereby "aid" in achieving and maintaining, for an extended period of time, a better putting surface. I am not saying I favor one versus the other, nor is the intent of this article to be controversial; however, it is not the golf course superintendents who must be aware of the derivatives of the two different machines, but rather the rest of the entire golfing population be aware of the pros and cons of such a cultural practice.

All too often a golfer will make a comparison about the condition of greens of two different clubs, without even being aware of what type of machine performs the mowing. The comparable variables of type of club, extent of play, budget, type of cultivar, cultural practices and ul-

mate speed desired will determine just what type of machine meets the club's requirements. If all of these variables could ever be found equal between two different clubs, then we could compare apples to apples.

We, as the golf course superintendent, are given the responsibility to advise a club toward that certain direction of maintaining an excellent putting green surface. All too often a club will impulsively be led to believe that walk mowers can be their key to success. The club, with their golf course superintendent, should objectively evaluate the desired product, evaluate total cost, and the answer will glaringly hit you in the face... you will not even have to contemplate the situation, as the answer should already be revealed.

Such is the case for George Cavanagh, Certified Golf Course Superintendent at the President Country Club, in West Palm Beach. Upon the building of an additional 36 holes, management has confronted Mr. Cavanagh to objectively evaluate walk mowers versus triplex for greens mowing. Mr. Cavanagh recently made a personal survey within Palm Beach County regarding this situation, by contacting many clubs of diversification, to objectively evaluate such usage. The golf course superintendent was asked the following questions, with a general conclusion as follows:

1. *Do you use hand mowers, if so, why?* Replies were rather equally balanced as many courses use walk mowers in the winter, while triplexes are dominant during the summer, and those who use walks in the winter, generally switch during the summer. Reasons for using walks were reinforced by quality of cut and less wear stress during the crucial winter months. Those who employ walks find maintenance expenses higher by comparison, but are willing to pay the cost.

2. *How many greens do you have?* A distinct pattern showing the larger complex, and the development courses prefer triplexes, in comparison to the smaller exclusive private country clubs preferring the walks even though additional costs are incurred.

3. *Do you overseed?* Those overseeding found the walks more beneficial toward a better stand of turf, while some prefer walks for just the period of seed establishment, while those who do not find the need to overseed, generally find the demand for cut can be fulfilled by the triplex.

4. *What is the average size of your greens?* Greens sizes were averaging 6000 square feet. There was a correlation

(continued on page 23)

(continued from page 22)

with the smaller the green size and the heavier the amount of play, the need for walk mowers, while the larger the size, obvious wear tolerance can be reduced; thereby, allowing triplexes. Some courses find a need for both types, as walks are used on greens that are not agronomically sound, or greens with severe shade; whereby, walks will aid with such a delicate situation. Some even prefer walks for the perimeter cut, while the triplex mows the remainder of the green.

5. *Do you find you can cut greens lower with walks?* Surprisingly, the walks are not employed for the reason of lower cut, but again for reasons of truer cut and less wear. A lower height was not considered the objective, as cultural practices were satisfactory no matter which type of machine performed the cutting.

6. *Do you use walk mowers 7 days or skip?* Cost evaluations can best be given as the answer. The totally exclusive, private club, where cost is generally not a factor, prefer walks 7 days a week. Some chose to skip walks on weekends primarily for ease of labor while some chose walks for only special occasions.

7. *Procedure for winter/summer?* Those who chose walks, prefer usage primarily for the winter, while seldom were the walks used year round. Considering we must contend with a 12 month growing season with the need of such extensive summer renovation, the labor force can not afford to be used for such tasks as simply mowing greens, when so many other projects must be resolved.

8. *How many greens can I mow?* One man can mow all 18 greens with a triplex and stay ahead of play if given enough lead time. Seldom will a man mow more than 5 greens with a walk mower. Cost in labor time can be as much as six times as expensive, if the walkers were to mow three greens each.

9. *How do you transport walks?* This is a key question, as seldom does the average golfer consider the need for additional ground transportation. Considering the time element is a key factor, if the greens are to be mowed ahead of play, a major expense can be incurred for proper efficient vehicles and trailers.

10. *Rate quality?* Those who employ the additional cost of walks, generally agree with management, that the type of cut is beneficially worth while; however, one must certainly be willing to pay the bill for additional mower purchases, because one will still usually employ triplexes during the summer.

An overall summary can best be stated as; yes, walk mowers will aid in producing a better high quality putting green surface; however, there are many other factors to consider and the cost incurred will most certainly be far greater than triplexes.

First, one must consider, does your club really require the need for such high quality putting surfaces? If the answer is yes, then one must critically examine the exorbitant additional cost of machines, parts, labor and total time involved. If the answer is again yes, then you have already reached a conclusion; however, if you answered no to just one part of this discussion, then proceed no further. ■

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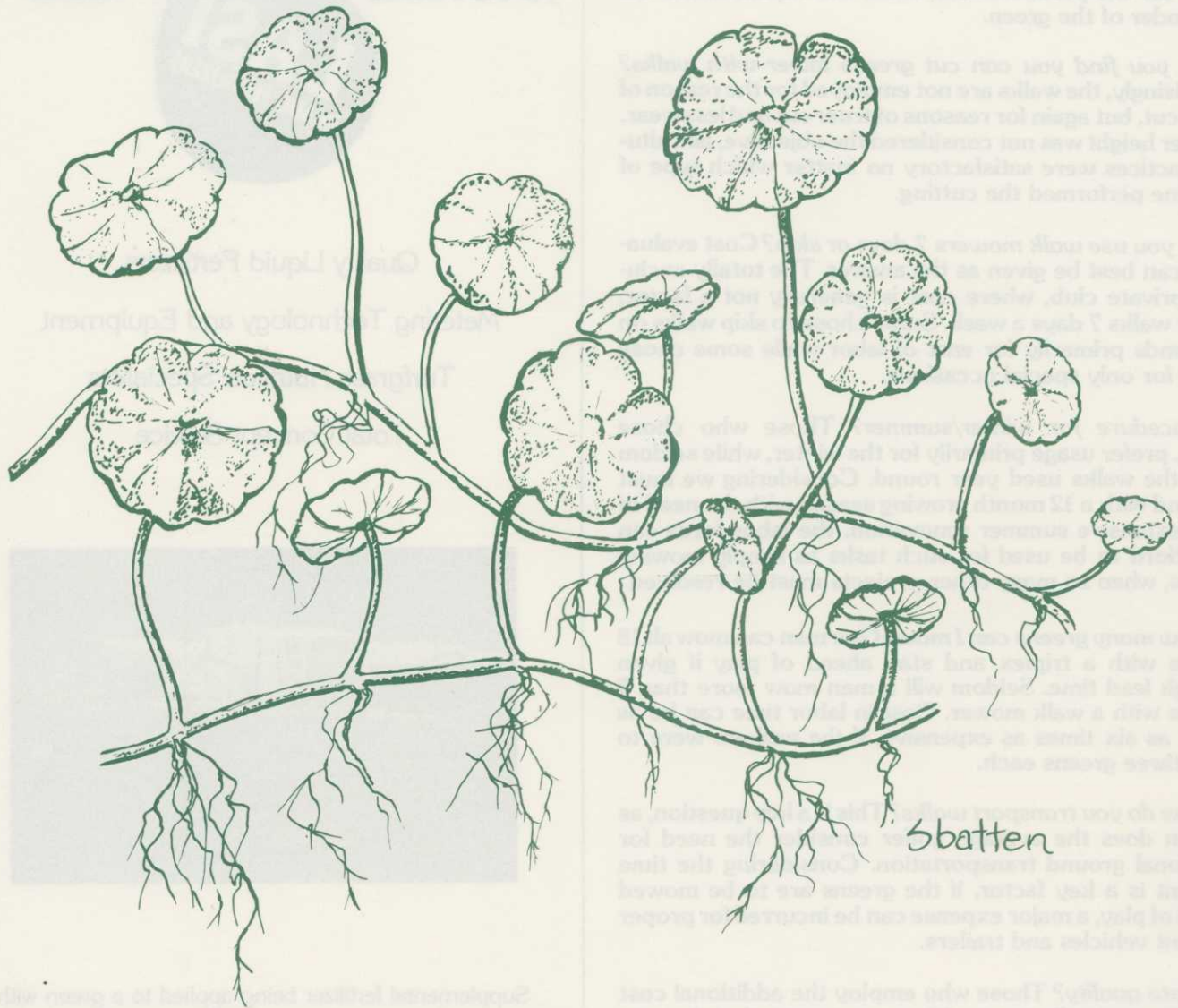
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# PENNYWORT (Hydrocotyl spp.)

By Steve Batten

Pennywort (Dollarweed) can be found in low wet areas along the Southern Coastal States of the United States and Tropical America. Several species have also been found in South Africa. It can be easily recognized by its peltate flat leaf with the stem connected to the middle.

It is a member of the carrot family which also includes Marsh Parsley, Water-Hemlock, and Bishop's Weed. There are three species common to Florida, according to Dr. David Hall, University of Florida. These include *Hydrocotyle unbelletus* (Water Pennywort), *H. bonariensis* (Coastal Plain Pennywort), and *H. verticillata* (Whirled Pennywort). All three species are so similar in appearance that without the flower spike most people cannot tell the difference.

Besides air born seeds, Pennywort can spread by means of rhyzomes or creeping stems and reproduce from stems and pieces. It's creeping habit enables it to withstand low mowing heights common to golf course greens. Therefore it can be difficult to control. Most herbicide recommendations include combinations of 2,4-D + Dicamba. Multiple applications are usually necessary for control at bi-weekly intervals. ■



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# **GROUNDMASTER<sup>®</sup> 52 AND GROUNDMASTER<sup>®</sup> 62**

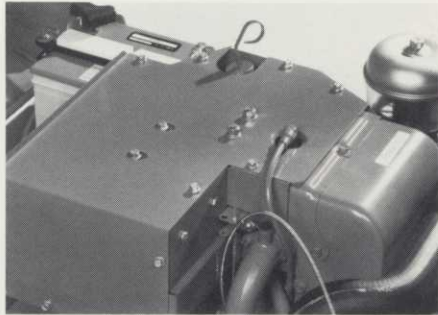


**These durable midsize 52" and 62" rotaries  
mow like garden tractors,  
trim close like walk mowers,  
and let one man do both faster.  
That's the productivity of professionals.**

# Toro engineering makes our Groundsmaster 52 and Groundsmaster 62 deliver superior performance. And Toro durability keeps them that way longer.

## DURABILITY FEATURES:

**POWER TO SPARE FROM ENGINES PAINSTAKINGLY TESTED AND SELECTED BY TORO ENGINEERS** to fit the machine and its applications:



**a.** Groundsmaster 52 has a 16 hp, 32.4 cu. in., cast-iron, air cooled Briggs & Stratton engine.



**b.** Groundsmaster 62 is powered by a 20 hp, 47.7 cu. in., twin cylinder, air cooled Onan engine for strong, quiet performance.



**HYDROSTATIC DRIVE** provides single pedal operation for forward/reverse speeds. Easy, smooth maneuverability with no clutch to wear out. Also, your operator gets superb speed control for all conditions. Infinitely variable speed up to 8.5 mph.



**HEAVY DUTY DONALDSON AIR CLEANER** is industrial type. Keeps your engine running longer by filtering out dirt and other contaminants before they can cause excessive wear. Allows dirt to be removed easily at the end of each day.



**RUGGED ROTARY BLADE SPINDLE** to stand up to bombardment of rocks and other debris. Toro uses a cone rather than a cylinder housing, and splines rather than keys, to better absorb shock loads. Timken "SS" bearings also used. All for greater durability.



## PERFORMANCE FEATURES:



**P.T.O. DRIVE SHAFT** with mechanical engagement for decks or accessories. Avoids belt misalignments and makes changing from one accessory to another a breeze.



**OFFSET DECK OUT FRONT AND REAR WHEEL STEERING** for superior maneuverability. And the 52" and 62" decks are just right in size. Big enough to get the job done quickly and small enough to get into those tight spots. Both decks are offset 10 $\frac{1}{4}$  inches to give you one pass trimming around trees and obstacles. It's also ideal along curbs and beneath overhanging shrubs.



**EXCELLENT STABILITY** comes from 4 wide stance wheels plus low center of gravity. Front drive wheels and rear wheels are equipped with 4 ply rated tires. Both drive wheels have drum brakes controlled by individual pedals.



**CUTTING HEIGHT ADJUSTS EASILY** from 1 to 4 inches without tools. Simply pull four pins.

**FLOATING DECK** means more consistent cut, even over irregular terrain, because the cutting unit floats free of the prime mover. And, the entire deck raises hydraulically for fast, easy transport over obstructions like curbing.

**OPERATOR STATION** features adjustable, molded cushion seat, or deluxe suspension seat for a smooth ride all day long. 15 inch steering wheel, hour meter and ammeter, all located for maximum comfort, convenience and efficiency. Safety interlock stops engine when operator leaves seat with PTO or traction pedal engaged.

# Team your Groundsmaster 52 or Groundsmaster 62 with any of these deck combinations.

## GROUNDMASTER 52 PRIME MOVER.

Shown with floating 52" deck. Driven by a 16 HP, 32.4 cu. in., cast iron, air cooled Briggs and Stratton engine. Designed for mowing up to 2.8 acres/hour. Ideal for mowing small areas, or as a trim mower when maneuverability is most important. Offers variable ground speed up to 8.5 m.p.h. Hydrostatic drive for single pedal operation of forward and reverse. Excellent stability from 4 wide stance wheels plus low center of gravity. Front drive wheels and rear wheels are equipped with 4 ply rated tires. Both drive wheels have drum brakes with individual pedals for greater trimability that reduces an uncut circle to 0". Operator station has adjustable, molded cushion seat or a deluxe suspension seat for smooth ride all day long. PTO drive shaft makes accessory changes a snap.



## GROUNDMASTER 52 FLOATING DECK.

This three bladed, front mounted rotary unit offers full flotation in all directions, with rollers in front and back for reduced scalping. Ideally suited to cutting situations that involve hilly, uneven terrain. The Groundsmaster 52 with floating deck is capable of mowing up to 2.8 acres an hour at 5.5 m.p.h. Deck offset 10 $\frac{1}{4}$ " to the left for greater trimability. Capable of a 0" uncut circle with brake assist. Has a 51 $\frac{3}{4}$ " width of cut. Can cut from a height of 1" to 4" in  $\frac{1}{2}$ " increments and has simple adjustment without tools. 5" deep 12 gauge stamped steel Wind Tunnel<sup>®</sup> housing for easier cutting and clippings discharge even on wet grass.



## GROUNDMASTER 52 STANDARD DECK.

The Groundsmaster 52 with standard deck is capable of mowing up to 2.8 acres an hour at 5.5 m.p.h. Unit has 51 $\frac{3}{4}$ " width of cut with the three blade front mounted rotary deck. Deck offset 10 $\frac{1}{4}$ " to the left. Can cut a 0" uncut circle with brake assist. Can be adjusted easily for a height of cut, from  $\frac{3}{4}$ " to 4" in  $\frac{1}{4}$ " increments, without tools. Has 5" deep, 12 gauge stamped steel Wind Tunnel<sup>®</sup> housing for easy cutting even on wet grass.



## GROUNDMASTER 52 FLOATING REAR DISCHARGE DECK.

Designed for controlled discharge of clippings to the rear center between wheels. Has full flotation design with front rollers to reduce scalping. Constructed from 12 gauge steel and is 3" deep. The 51 $\frac{3}{4}$ " deck can mow up to 2.3 acres/hour at 4.5 m.p.h. Three bladed front mounted rotary is offset 10 $\frac{1}{4}$ " to left for close trimming around obstacles and under overhangs. Adjusts from 1" to 4" in  $\frac{1}{2}$ " increments without tools. Lifts hydraulically for transport.



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## GROUNDMASTER 52

52" floating cutting deck  
52" standard cutting deck  
52" floating rear discharge cutting deck

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## GROUNDMASTER 62

62" floating cutting deck  
52" floating cutting back  
52" standard cutting deck  
52" floating rear discharge cutting deck

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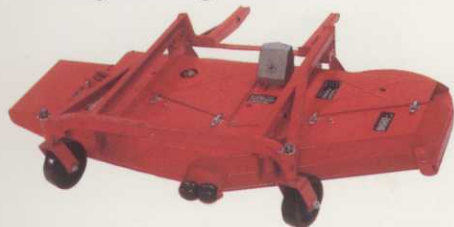
## GROUNDMASTER 62 PRIME MOVER.

Shown with floating 62" deck. Driven by a rugged 20 HP, 47.7 cu. in., twin cylinder, air cooled Onan engine. Designed for mowing up to 3.4 acres/hour. Ideal for mowing small to medium sized open areas, and for trimming in medium to large areas. Variable ground speed up to 8.5 m.p.h. Hydrostatic drive for single pedal forward/reverse. Four wide stance wheels with 4 ply rated tubeless tires. Front wheel traction drive. Rear wheel steering for greater maneuverability. Individual drum brakes for left and right traction wheels to allow for brake assist steering that makes possible trimming up to a 0' uncut circle. Operator controls designed for easy access and operation. Molded foam seat or deluxe suspension seat offer operator comfort even on the toughest terrain. Donaldson air cleaner standard. Tough commercial strength construction. PTO drive shaft for easy interchangeability of decks and accessories.



## GROUNDMASTER 62 FLOATING 62" DECK.

Capable of mowing up to 3.4 acres an hour at 5.5 m.p.h. Front mounted, three bladed, rotary deck has 61 $\frac{3}{8}$ " width of cut. Deck is offset 10 $\frac{1}{4}$ " to the left for greatly increased trimability. Capable of 0' uncut circle with brake assist. Deck easily adjusts without tools for a height of cut from 1" to 4" in  $\frac{1}{2}$ " increments. Rugged 5" deep 12 gauge steel welded construction for greater durability even in tough mowing conditions.



## GROUNDMASTER GRASS COLLECTING SYSTEM.

Designed to fit the Groundmaster 52 floating deck, the Grass Collecting System allows on-the-unit bagging of grass clippings. Utilizes a separate 16" diameter durable one-piece, high-density polypropylene chute directs the grass clippings back through a hinged hood mounted to the bag support system. A rear-mounted polyester bag for clippings is positioned inside the path of the cutter deck for easy maneuverability. Hinged hood on top of bag support opens easily for quick removal of grass bag. The grass collecting system comes standard with a polyester bag capable of holding 7 bushels of grass clippings. An optional dry condition polyester bag that will hold up to 10 bushels of clippings is also available.



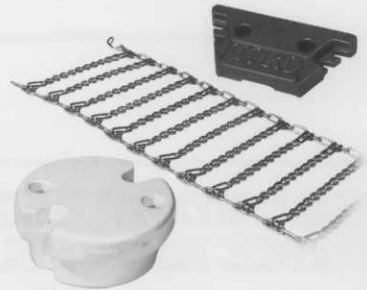
# These accessories make our Groundsmaster 52 and Groundsmaster 62 professionals for all seasons.



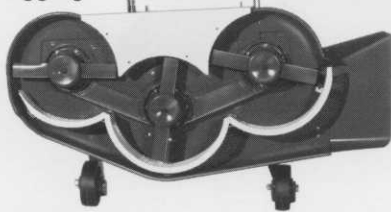
**SNOWTHROWER.** Big 48" two stage snowthrower with adjustable side skids and discharge chute. Electric chute rotator comes standard. Driftbreaker auger and oversized second stage clears snow in a hurry and prevents clogging.



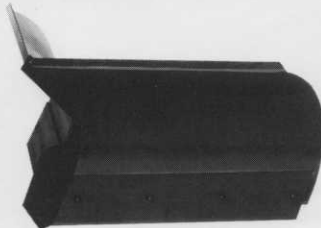
**CAB WITH ROPS.** Completely enclosed vinyl cab turns your Groundsmaster into an all-weather vehicle. Includes ROPS. Heater and light kit available.



**WHEEL WEIGHTS/REAR WEIGHTS/TIRE CHAINS.** Toro offers wheel weights and tire chains for better traction when using accessories. Rear weights will help counterbalance front mounted accessories for better operation.



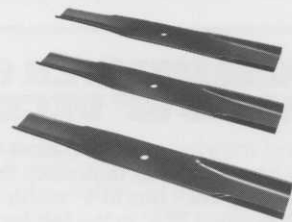
**LEAF MULCHER.** Made of heavy gauge steel, the leaf mulcher mounts under side discharge decks allowing blades to vacuum and pulverize fallen leaves.



**V-PLOW.** Rugged, 48" V-plow for snow has front skid and reversible/replaceable scraper blades for low cost snow removal. Requires special mounting kit which includes tire chains.



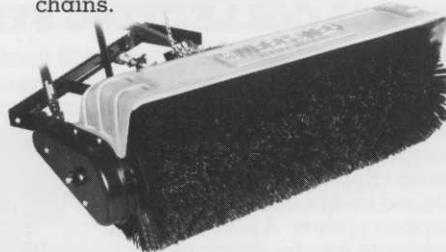
**SPARK ARRESTOR MUFFLER.** Minimizes spark emissions.



**HIGH LIFT BLADES.** Provides additional lift for improved appearance in wet or heavy grass.



**ROLL OVER PROTECTION SYSTEM.** Certified roll over protection system (ROPS) for greater operator safety conforms to OSHA regulations, includes seat belt for greater safety.



**ROTARY BROOM.** Tough 48 inch rotary broom sweeps parking areas, paths and walkways, saves hand labor.



**SEAT OPTIONS.** Choose from adjustable, molded foam seat or deluxe suspension seat for operator comfort on your unit.

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When you need reliable maintenance and repair service, turn to your full service Toro distributor. He has highly trained people ready to serve you fast. A complete inventory of replacement parts. Plus other valuable services, like technical training for your operators. Whatever your needs in professional turf equipment, call your full service Toro distributor.

## GROUNDMASTER® 52 PRIME MOVER (MODEL NO. 30775)

<b>ENGINE</b>	Briggs & Stratton, 1 cylinder, 4 cycle, air-cooled 16 HP @ 3600 RPM, electric start. 32.4 cu. in. displacement. Splash oil system. 2 qt. oil capacity, I-beam alloy aluminum connecting rod, cast iron cylinder block, mechanical flyweight governor limits speed to 3200 RPM, vacuum fuel pump. Heavy duty remote mounted Donaldson Cyclopac air cleaner. Extra large muffler for reduced noise level. Optional spark arrestor muffler available from Briggs & Stratton.
<b>ELECTRICAL FEATURES</b>	12 volt, 66 plate, 57 amp-hour capacity battery. Dash-mounted ignition switch. 3.2 amp., 12 volt dual circuit alternator with 60-100 watt A.C. lighting circuit. Seat switch, PTO and traction interlock switches.
<b>WEIGHT</b>	770 lbs. prime mover with seat.
<b>CERTIFICATION</b>	Certified to meet ANSI specifications B71.1b. — 1977, and applicable Federal and State OSHA regulations based thereon.

## GROUNDMASTER® 62 PRIME MOVER (MODEL NO. 30790)

<b>ENGINE</b>	Onan twin opposed cylinder, 4 cycle, air cooled, 20 HP @ 3600 RPM, electric start. 47.7 cu. in. displacement. Gear driven oil pump for full pressure lubrication, remote mounted replaceable oil filter, and remote mounted engine oil cooler. 2 qt. oil capacity. System also incorporates low oil pressure shut-off switch and high cylinder head temperature shut-off switch. Alloy aluminum connecting rods. Pearlitic iron cylinder liners cast into block. Mechanical flyball governor limits speed to 3200 RPM. Vacuum fuel pump. Heavy duty, remote mounted Donaldson Cyclopac air cleaner. Extra large muffler for reduced noise level. Optional spark arrestor muffler Part No. 46-2390.
<b>ELECTRICAL FEATURES</b>	12 volt, 42 plate, cold cranking 300 amperes at 0°F, 50 minute reserve capacity at 80°F, maintenance free battery. 15 amp. alternator with regulator. Seat switch, PTO and traction interlock switches.
<b>WEIGHT</b>	810 lbs. prime mover with seat.
<b>CERTIFICATION</b>	Certified to meet ANSI specifications B71.4-1980 with 62" deck, ANSI B71.1b. — 1977 for all 52" decks, and applicable Federal and State OSHA regulations based thereon.

## SPECIFICATIONS COMMON TO GROUNDMASTER 52 AND 62

<b>FUEL CAPACITY</b>	6.0 gallons gasoline.
<b>TRACTION DRIVE</b>	Variable hydrostatic transmission mounted on Dana GT20 axle — 20.9:1 ratio. Single foot pedal control of forward/reverse ground speed. 25 micron replaceable filter. 5 qt. oil capacity.
<b>GROUND SPEED/CLEARANCE</b>	0-8.5 MPH, infinitely variable. Ground clearance 6"
<b>TIRES/WHEELS/PRESSURES</b>	Two rear steering tires 15 x 6.00 — 6, tubeless 4 ply rating. Two front traction drive tires 20 x 8.00 — 10, tubeless 4 ply rating. Demountable rims. Recommended tire pressure 10-15 P.S.I. depending on mowing conditions.
<b>MAIN FRAME</b>	All welded formed steel reinforced with square tubing.
<b>BRAKES</b>	Individual 7" x 1 1/4" drum type wheel brakes and parking brakes on front traction wheels. Dynamic braking through traction drive.
<b>STEERING</b>	Automotive steering gear assembly. 15" steering wheel.
<b>CONTROLS</b>	Hand operated throttle, choke, PTO, and hydraulic implement lift.
<b>GAUGES</b>	Hour meter and ammeter.
<b>SEAT</b>	Optional: Molded foam seat with leaf-spring suspension, Model No. 30765. Deluxe suspension seat, Model No. 30766. Both adjustable 4 1/4" fore and aft.
<b>IMPLEMENT DRIVE</b>	1" diameter splined PTO shaft clutched by two "HA" torque team section tight-slack V-belt.

### 52" STANDARD CUTTING UNIT (MODEL NO. 30545)

<b>TYPE</b>	51 1/4" width-of-cut, three blade, front mounted rotary.
<b>MOWING RATE</b>	Mows up to 2.8 acres/hour at 5.5 MPH depending on conditions.
<b>TRIMMING ABILITY</b>	Deck offset 10 1/4" to the left from center line; deck offset 10 1/4" to the left from outside of tire to trim side; 26" uncut circle left; 0" uncut circle with use of individual wheel brakes.
<b>HEIGHT OF CUT</b>	3/4"-4", adjustable in 1/4" increments in front and 1" increments in rear.
<b>CONSTRUCTION</b>	12 gauge stamped steel, 5" deep, Wind-Tunnel® housing.
<b>CUTTER DRIVE</b>	PTO driven spiral bevel gear box. "AA" section belt drive to all spindles. 3/4" regreasable spindles with two ball bearings.
<b>BLADES</b>	Three 18" long, 3/16" thick, heat treated steel blades.
<b>SUSPENSION</b>	Two 8" front wheels. Suspended off the prime mover at rear.
<b>LIFT</b>	Two hydraulic cylinders.
<b>WEIGHT</b>	190 lbs.
<b>CERTIFICATION</b>	Certified to meet ANSI B71.1b — 1977, and applicable Federal and State OSHA regulations based thereon.

### 52" FLOATING REAR DISCHARGE CUTTING UNIT (MODEL NO. 30560)

<b>TYPE</b>	51 1/4" width-of-cut, three blade, front mounted rotary.
<b>MOWING RATE</b>	Mows up to 2.3 acres/hour at 4.5 MPH depending on conditions.
<b>TRIMMING ABILITY</b>	Deck offset 10 1/4" to the left from center line; deck offset 10 1/4" to the left from outside of tire to trim side; trims on both sides; 26" uncut circle left. 0" uncut circle to left with use of individual wheel brakes.
<b>HEIGHT OF CUT</b>	1"-4" adjustable in 1/2" increments by relocating four pins, one at each corner of the cutting unit.
<b>CONSTRUCTION</b>	12 gauge welded construction, 3" deep.
<b>CUTTER DRIVE</b>	PTO driven spiral bevel gear box. "AA" section belt drive to all spindles. 1" regreasable spindles with two tapered roller bearings.
<b>BLADES</b>	Three 18" long, 3/16" thick, 2.5" wide, heat-treated steel blades.
<b>CARRIER FRAME SUSPENSION</b>	Two 8" phenolic resin front wheels with regreasable roller bearings. Suspended off prime mover at rear. Front deck rollers. Deck counter-balanced by spring between cutting unit and prime mover.
<b>LIFT</b>	Two hydraulic cylinders.
<b>WEIGHT</b>	230 lbs.
<b>CERTIFICATION</b>	Certified to meet ANSI B71.1b — 1977 Safety Specifications, and applicable Federal and State OSHA regulations based thereon.

### 52" FLOATING CUTTING UNIT (MODEL NO. 30555)

<b>TYPE</b>	51 1/4" width-of-cut, three blade, front mounted rotary.
<b>MOWING RATE</b>	Mows up to 2.8 acres/hour at 5.5 MPH depending on conditions.
<b>TRIMMING ABILITY</b>	Deck offset 10 1/4" to the left from center line; deck offset 10 1/4" to the left from outside of tire to trim side; 26" uncut circle left; 0" uncut circle with use of individual wheel brakes.
<b>HEIGHT OF CUT</b>	1"-4" adjustable in 1/2" increments by relocating four pins at each corner of cutting unit.
<b>CONSTRUCTION</b>	12 gauge stamped steel, 5" deep Wind-Tunnel® housing.
<b>CUTTER DRIVE</b>	PTO driven spiral bevel gear box. "AA" section belt drive to all spindles. 1" regreasable spindles with two tapered roller bearings.
<b>BLADES</b>	Three 18" long, 3/16" thick, 2.5" wide, heat treated steel blades.
<b>CARRIER FRAME SUSPENSION</b>	Two 8" phenolic resin front wheels with regreasable roller bearings. Suspended off the prime mover at rear. Front and rear deck rollers. Deck counterbalanced by spring between cutting unit and prime mover.
<b>LIFT</b>	Two hydraulic cylinders.
<b>WEIGHT</b>	220 lbs.
<b>CERTIFICATION</b>	Certified to meet ANSI B71.1b — 1977, and applicable Federal and State OSHA regulations based thereon.

### 62" FLOATING CUTTING UNIT (MODEL NO. 30562)

<b>TYPE</b>	61 1/4" width-of-cut, three blade, front mounted rotary.
<b>MOWING RATE</b>	Mows up to 3.4 acres/hour at 5.5 MPH depending on conditions.
<b>TRIMMING ABILITY</b>	Deck offset 10 1/4" to the left from center line; deck offset 16" from outside of tire to trim side; 18" uncut circle left; 0" uncut circle with use of individual wheel brakes.
<b>HEIGHT OF CUT</b>	1"-4" adjustable front and rear in 1/2" increments by relocating four pins at each corner of cutting unit.
<b>CONSTRUCTION</b>	12 gauge steel, 5" deep Wind-Tunnel® housing, welded construction.
<b>CUTTER DRIVE</b>	PTO driven spiral bevel gear box. "AA" section belt drive to all spindles. 1" regreasable spindles with two tapered roller bearings.
<b>BLADES</b>	Three 21.5" long, 2.5" wide, 3/16" thick, heat-treated steel blades.
<b>CARRIER FRAME SUSPENSION</b>	Two 8" phenolic resin front wheels with regreasable roller bearings. Suspended off prime mover at rear. Front and rear deck rollers. Deck counterbalanced by spring between cutting unit and prime mover. Deck includes one 35 lb. rear weight.
<b>LIFT</b>	Two hydraulic cylinders.
<b>WEIGHT</b>	335 lbs.
<b>CERTIFICATION</b>	Certified to meet ANSI B71.4 — 1980, and applicable Federal and State OSHA regulations based thereon.

**IMPLEMENT AND ACCESSORY COMBINATIONS**

	30545 CUTTER	30555 CUTTER	30560 CUTTER	30562 CUTTER	30570 SNOWTHROWER	30750 V-PLOW	ROTARY BROOM	CAB W/ROPS	ROPS	30765 STANDARD SEAT	30766 DELUXE SEAT	SPARK ARRESTOR MUFFLER
<b>PRIME MOVER MODEL NO. 30775</b>	Opt.	Opt.	Opt.	—	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
<b>PRIME MOVER MODEL NO. 30790</b>	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
<b>GRASS COLLECTING SYSTEM MODEL NO. 30557</b>	—	Opt.	—	—	—	—	—	—	—	—	—	—
<b>LEAF MULCHER MODEL NO. 30700</b>	Opt.	Opt.	—	—	—	—	—	—	—	—	—	—
<b>LEAF MULCHER MODEL NO. 30792</b>	—	—	—	Opt.	—	—	—	—	—	—	—	—
<b>V-PLOW MOUNTING KIT MODEL NO. 30755</b>	—	—	—	—	—	Req.	—	—	—	—	—	—
<b>SNOWTHROWER ADAPTER KIT MODEL NO. 30572</b>	—	—	—	—	Req.	—	—	—	—	—	—	—
<b>TIRE CHAINS PART NO. 28-5470</b>	—	—	—	—	Opt.	Incl.	Opt.	—	—	—	—	—
<b>WHEEL WEIGHTS PART NO. 28-1270</b>	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	—	—	—	—	—
<b>REAR WEIGHT KIT PART NO. 24-5780</b>	Opt.	Opt.	Opt.	Opt.	Req.	Opt.	Opt.	—	—	—	—	—
<b>HIGH LIFT BLADE PART NO. 44-5480</b>	—	Opt.	—	—	—	—	—	—	—	—	—	—

**LEAF MULCHER**

Optional attachment of 12 gauge steel with 1/4" diameter staggered holes. Mounts under side discharge deck. Model No. 30700 fits cutting units #30545, 30555; Model No. 30792 fits cutting unit #30562.

**GRASS COLLECTING SYSTEM (MODEL NO. 30557)  
FOR 52" FLOATING CUTTING UNIT**

**CONSTRUCTION**

**Blower assembly housing** is 16" diameter, three piece welded construction. The blower assembly attaches to the discharge port of Model #30555 cutting unit. Impeller speed is 1650 RPM max. @ 3200 RPM engine speed.

**Chute** is one piece, made of black, high density polypropylene material used to direct debris into bag.

**Hinged hood**, Mounted to bag support assembly, is made of black high density polypropylene. Air exhausted through riveted metal screen in hood.

**Rectangular bag support** is welded to frame of steel tubing. Bottom pan is black high density polypropylene riveted to a welded tubular steel frame. The bag support assembly mounts to the right side of traction unit and supports a polyester grass bag.

**Bumper** of steel tubing is bolted to deck suspension frame to protect blower housing. Includes deck baffling and mounting bracket.

**CAPACITY**

Polyester bag 20" dia. x 46" high — approximately 7 bushels.  
Optional dry condition polyester bag 24" dia. x 46" high — approximately 10 bushels. Part No. 43-0980.

**OPTIONAL  
ACCESSORIES**

18" high lift blades for improved wet grass bagging, Part No. 44-5480.  
Elastic retaining cord allows use of 30+ gallon plastic trash bags, Part No. 36-7770.

**DIMENSIONS**

57" high, 120" long, 68" wide, installed.

**WEIGHT**

123 lbs. — grass collecting system only.

**CERTIFICATION**

Certified to meet ANSI B71.1b. — 1977 and applicable Federal and State OSHA Regulations based thereon.

**V PLOW (MODEL NO. 30750)**

**CONSTRUCTION**

48" heavy gauge steel construction with front skid and reversible/replaceable scraper blades.

**WEIGHT**

210 lbs.

**V PLOW MOUNTING KIT (MODEL NO. 30755)**

**CONSTRUCTION**

Consists of push arm attaching brackets. Required for mounting V Plow.

**WEIGHT**

50 lbs.

**ACCESSORIES**

Tire chains included (Part No. 28-5470).

**SNOWTHROWER (MODEL NO. 30570; 30572 ADAPTER KIT)**

**TYPE**

48" two stage with adjustable side skids and discharge chute.

**WEIGHT**

340 lbs.

**ACCESSORIES**

Two optional rear weight kits required (Part No. 24-5780).

**ROTARY BROOM**

**TYPE**

48" wide. Consult with your Toro distributor for manufacturer's specifications.

**CAB WITH ROPS**

**CONSTRUCTION**

4 post ROPS all steel tubular frame construction with contrasting steel canopy. Includes seat belt, seat retention kit and perforated foam headliner.

**OPTIONAL** Vinyl enclosure kit consists of reinforced heavy duty vinyl fabric with left side heavy gauge wire frame door. Enclosure kit includes tinted safety glass windshield, velcro fastening kit, latching door handle, and floor mat.

**CERTIFICATION**

Certified to meet OSHA standard 1928.51(b)(1).

**ELECTRICAL  
FEATURES**

**OPTIONAL** Light kit includes front headlight rear work light, and roof-mounted flashing amber beacon.  
**OPTIONAL** Single speed windshield wiper and defroster fan for cab installation.

**WEIGHT**

4-Post ROPS with canopy-110 lbs.; enclosure kit — 60 lbs.

**OVERALL DIMENSIONS AND WEIGHTS (APPROX.)**

	LENGTH	WIDTH	HEIGHT	WEIGHT
<b>TRACTION UNIT #30775</b>	74"	42"	48"	770 lbs.
<b>W/30545 CUTTING UNIT</b>	95"	65"	48"	960 lbs.
<b>W/30555 CUTTING UNIT</b>	97.5"	65"	48"	990 lbs.
<b>W/30560 CUTTING UNIT</b>	97.5"	53.5"	48"	1,000 lbs.
<b>W/GRASS COLLECTING SYSTEM</b>	97.5"	68"	57"	
<b>W/SNOWTHROWER</b>	102"	51"	48"	
<b>W/V-PLOW</b>	99"	48"	48"	
<b>W/BROOM</b>	119.5"	53"	48"	
<b>W/ROPS</b>	N/A	42"	74.5"	
<b>W/CAB</b>	N/A	42"	74.5"	
<b>TRACTION UNIT #30790</b>	78"	42"	48"	810 lbs.
<b>W/30562 CUTTING UNIT</b>	106"	74"	48"	1,145 lbs.
<b>W/30545 CUTTING UNIT</b>	99"	65"	48"	1,000 lbs.
<b>W/30555 CUTTING UNIT</b>	101.5"	65"	48"	1,030 lbs.
<b>W/30560 CUTTING UNIT</b>	101.5"	53.5"	48"	1,040 lbs.
<b>W/GRASS COLLECTING SYSTEM</b>	101.5"	68"	57"	
<b>W/SNOWTHROWER</b>	106"	51"	48"	
<b>W/V-PLOW</b>	103"	48"	48"	
<b>W/BROOM</b>	123.5"	53"	48"	
<b>W/ROPS</b>	N/A	42"	74.5"	
<b>W/CAB</b>	N/A	42"	74.5"	

**ACCESSORIES**

DESCRIPTION	MODEL/ PART NO.	DESCRIPTION	MODEL/ PART NO.
<b>TIRE CHAINS — 20 LBS.</b>	28-5470	<b>STANDARD SEAT</b>	30765
<b>WHEEL WEIGHTS — 100 LBS.</b>	28-1270	<b>DELUXE SUSPENSION SEAT</b>	30766
<b>REAR WEIGHT KIT — 70 LBS.</b>	24-5780	<b>SPARK ARRESTOR MUFFLER — MODEL NO. 30775</b>	See Briggs & Stratton 46-2390
<b>HIGH LIFT BLADE (ONE BLADE)</b>	44-5480	<b>MODEL NO. 30790</b>	

\*Specifications and design subject to change without notice.

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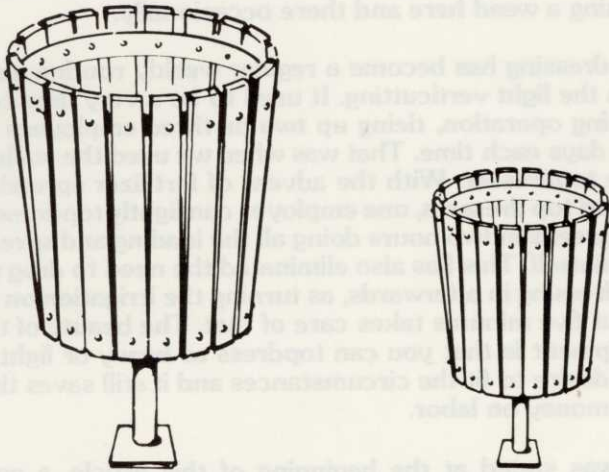
\*Toro is a registered trademark of The Toro Company,  
8111 Lyndale Ave. So., Minneapolis, Minnesota 55420.



## UNPREDICTABLE DAMAGE

Can you identify the cause of this damage at the Sunny Breeze Palms Golf Course, Arcadia, Florida?

Wild hogs, a family of fifteen to twenty of them have been going "hog wild" all around the back nine at Sunny Breeze Palms. Superintendent David Fry reports that the animals first rooted up his course in September 1982; since then the hogs have been back twice. Damage shown in the picture was done overnight, right after new sod had been laid down. ■

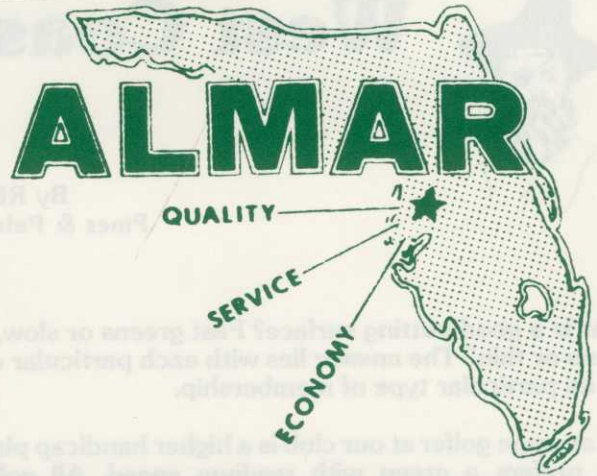


Lakeshore Equipment & Supply Co. is now marketing small and large litter baskets for use in recreational and golf course facilities.

The weather-resistant cypress baskets have vat dipped frames. Baskets are available with pedestals, spikes, brackets or on posts to be set in concrete.

The large size LESCO Litter Basket is 20" x 18" x 21" deep and fits a standard 22-gallon trash can (not included). The small basket is 12½" x 11" x 16" deep and comes with one liner. Additional liners are available for the small baskets.

For more information on the LESCO Spreaders or on any item in the complete line of turfgrass and horticultural supplies, call LESCO toll-free at (800) 321-5325 (Nationwide) or (800) 362-7413 (In Ohio). ■



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The University of Florida Agricultural Research and Education Center in Fort Lauderdale has received a Jacobsen Turfcut Mower from DeBra Turf and Industrial Equipment Company. This mower is being loaned to the University of Florida Turf Program as part of a cooperative undertaking between the University and DeBra. Pictured with the mower is William Ennis, Center Director (left); Bruce Augustin, Extension Turf Specialist (center); and David DeBra (right).



# West Coast Buccaneers



By REED LeFEBVRE  
Pines & Palms Management Corp.

What is a good putting surface? Fast greens or slow, full greens or thin? The answer lies with each particular club and its particular type of membership.

The average golfer at our club is a higher handicap player who prefers a green with medium speed. All golfers demand as smooth a putting surface as you can give them and also want their shots to hold.

To maintain a good putting surface for our golfers, we have set up a general schedule of mowing, verticutting, aerating and top dressing, which will keep the putting surface as consistent as possible.

Mowing practices play a very important part for the putting surface. Changing the direction of cut each day insures a smooth surface plus it helps to reduce grain in the green. We use "Wiehle rollers", which we feel give us a true height of cut while reducing grain. We use these type of rollers on both front and rear of our greensmower reels. Height of cut contributes a great deal to the putting surface, and we have found that cutting at 3/16" during the most of the year seems to satisfy most golfers. The only change would be during the coldest months, we raise the cut to 1/4" then to protect the overseeding.

Verticutting is another must practice for a good putting surface plus healthy grass. Initially we tried a severe verticutting in the spring and again in the fall and a few light ones in between, however time has shown us that we get just as good results verticutting lightly each week with the exception of December, January and February. Usually we only verticut one way each time, however, if we see thatch building up we'll go two ways.

Aerating is what I consider a sometimes necessary evil. We aerate only when it's necessary (the greens are com-

packed). We have in the past gone as much as a year between aerating. We are fortunate that our greens are made up of phosphate overlay, which is a very coarse sandy substance. They drain very quickly and are excellent for holding a shot. Their only drawback is the high phosphate content and high PH. With as much rain and traffic as we had this past winter season, we will have to aerate this spring. That's the one combination that will pack our soil. I called it a necessary evil because there are drawbacks to the operation. Each time you bring up soil from below the surface you also bring up some weed seeds, although this is more noticeable when fairways are aerated, it does happen sometimes on the greens. Although there are many good chemicals on the market to control weeds etc, irregardless of what the labels say, there is always an effect on the grass itself, whether it shows up now as a slight tip burn or shows up later in a poor root system, we try to use as little chemical control on the greens as we possibly can. Even if it comes to hand picking a weed here and there occasionally.

Topdressing has become a regular weekly routine along with the light verticutting. It used to be a very time consuming operation, tying up two or three employees for two days each time. That was when we used the walking type topdresser. With the advent of fertilizer spreaders turned top dressers, one employee can lightly topdress all our greens in two hours doing all the loading and spreading himself. This has also eliminated the need to drag the topdressing in afterwards, as turning the irrigation on for about five minutes takes care of that. The beauty of this equipment is that you can topdress as heavy or light as you desire to fit the circumstances and it still saves time and money on labor.

As was stated at the beginning of this article, a good putting surface depends on what individual clubs want. ■



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## TIFGREEN II BURMUDAGRASS RELEASED

CHARLES H. PEACOCK  
Associate Professor  
Extension Turf Specialist

Tifgreen II is an improved mutant of Tifton (Tifton 328) turf bermudagrass developed cooperatively by the U.S. Department of Agriculture, ARS, the Georgia Coastal Plain Station, the U.S. Golf Association Green Section, the Golf Course Superintendents Association of America and the Department of Energy. It was created by exposing dormant sprigs of Tifgreen to 7000 rads of gamma irradiation, growing spaced plants from the treated sprigs, and selecting plants or sectors of plants that appeared to be different. Produced in 1971, it has been subjected along with other promising mutants and Tifgreen to numerous tests to date. These tests show that Tifgreen II has many of the desirable characteristics of Tifgreen but has a lighter green color and usually develops less of the undesirable purple color when temperatures are low. When compared with Tifgreen under a minimal management program, Tifgreen II is more vigorous; makes a denser turf with fewer weeds; is much more resistant to root knot, stubby and sting nematodes; and exhibits much better spring recovery. In mid-April, 1982, after 3 years with minimal management (no nematicides, fungicides, insecticides, or summer herbicides), Tifgreen II made excellent recovery with no stand loss whereas the Tifgreen control plots had lost an estimated 40% of their stand. At the Agricultural Research Center, Ft. Lauderdale, Florida, Tifgreen II suffered significantly less mole cricket damage than Tifgreen.

Tifgreen II, like Tifgreen, is a sterile triploid that must be propagated vegetatively. It will be suited for golf greens, fairways, tees and lawns throughout the South and the subtropics of the world where Tifgreen is presently grown.

Tifgreen II will be released only to people who qualify as certified growers. To qualify, they must have their land inspected and approved by their state Crop Improvement Association.

### Editor's Note:

After writing about his desire to become a Golf Course Superintendent Pat Fatica, age 10, handed this article to his father. Pat's father is Ed Fatica, Superintendent at The Plantation Golf & Country Club, Venice, Florida. Ed sent it to us and we proudly want to share it with our readers.

### FUTURE JOB

I would like to be a golf course superintendent. I would like to because my dad is and I've lived at a golf course all my life except for once. Also I like to golf and I know a lot about it anyway. My dad wants me to work for him right now, (he wants me to rake traps) he thinks he won't have to pay me but he's wrong. He will have to pay me because raking traps isn't what I had in my mind anyway and that's my future job.



Pat Fatica  
Age: 10  
School: Garden Elementary

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