The right mower for the right job

Mulching mowers save time, money, government hassles

by Rick Rodier

There was a time when turf managers and landscape professionals could bag grass clippings, haul or pay someone else to haul them to a local landfill and have a gratifying, finished look. However, more state and local governments are banning yard waste disposal from landfills, but the after-cut appearance of the grass you're mowing remains as important as ever. This leaves you with few options for disposing of grass clippings: bagging and hauling to a diminishing and increasingly expensive number of disposal sites; composting or leaving clippings on the turf.

As the cost of collecting and disposing of grass clippings rises, mulching mowers seem like one of the best options. There are many benefits to mulching grass clippings. Agronomic benefits result from returning clippings to the turf. Efficiency is improved because the mowing process is not interrupted to bag and compost clippings. And transportation charges are automatically eliminated.

**Agronomic benefits**—Dr. James R. Watson, past president of the International Turfgrass Society and a recognized green industry expert, says mulching helps keep the plant root and crown areas cool, aids in proper clipping decomposition and conserves moisture, which enhances overall growth and photosynthesis.

"The strongest benefit," says Watson, "is pure economics. Mulching, rather than bagging, saves time, labor and money. Mulch

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Industrial rotary mowers: not just for tough roadsides

by Ian Burden

Wide, industrial rotary mowers aren't just for tough roadside grasses anymore.

Within the last five years, technical advances have allowed rotary mowers to be used in many fine turf situations, including

- golf courses
- industrial parks
- public school and university grounds
- public parks
- other areas where a smooth finish is required.

The addition of multiple, small, high-speed blades has made roadside rotaries capable of fine finishing cuts. (Most roadside rotary mowers use only one large, relatively slow-cutting blade in each head.)

For a comparatively low price, you can purchase a finishing rotary mower that will cut more acres per hour than other comparable equipment. This type of rotary mower will also very likely require less maintenance: the blades are easier to sharpen and it has fewer, less expensive parts.

However, when choosing a finishing rotary mower for smooth-cut mowing, be sure to take the necessary time to educate yourself on the various features of the mower to make sure you get a machine that will function properly and leave a finish that you will be proud to have. Here are a few purchasing points:

**Blades**—They should be relatively thin and sharp, and have

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adequate updraft to suck up the grass that is pushed down by the tractor wheels. However, excessive updraft will severely increase horsepower requirements and increase cost of fuel, labor and maintenance.

Make sure that the blades are at least 3/8-inch thick. If they are too thin, they will bend if an object is struck and the mower will leave a streak in the grass. The blades in the individual mower heads should overlap at least one inch.

**Blades**—The multiple mower sections should overlap at least six inches to prevent streaking. Check to make sure the spindle mounting plate is at least as wide as the blade, necessary to avoid lateral instability.

A constant velocity (CV) driveline maintains constant driveshaft speed while turning the tractor and mowing unit, and will eliminate a great deal of wear on the driveline and gearbox by preventing slowdown and speedup of the driveline during turns. Also, insist that your mower have a slip clutch to save the driveline from trash out. It should be easy to lubricate, and the blade shaft should be at least 1-1/4-inch in diameter with a blade mounting plate as wide as the blade.

**Belts**—You can get yourself into a lot of trouble if you choose a mower with inadequate or unmatched drive belts. All industrial mowers with idler pulleys (and most do) should have matched, computer-designed belts.

Matched belts are provided by the belt manufacturer. They are cut from the same belt material to ensure that they have the same resistance to stretching and wear. The computer design provides the proper size and type belt and the most efficient pulley sizes to provide long economical belt life.

Single belts used by most mower manufacturers (rather than double matched belts) will result in a seriously shortened belt lifespan and untimely and expensive parts replacement.

Make sure that the belts are easy to adjust and replace when necessary.

**Other factors**—A hydraulic mechanism to raise the wings for transportation to and from the worksite should be standard. Tires should be at least 26.00 x 12.00 x 12 pneumatic, flotation type. This will provide higher flotation, greater weight distribution and less turf compaction. The hydraulics and the mowing unit should be quick-disconnect types.

Make sure that the spindle and housing have seals that will keep the oil in and the trash out. It should be easy to lubricate, and the blade shaft should be at least 1-1/4-inch in diameter with a blade mounting plate as wide as the blade.

To avoid scalping on uneven terrain, your mower should be equipped with four gauge-wheels (wheels that will gauge the depth of cut) on each of the individual mowing units. An anti-scalping roller, three inches in diameter by 12 inches wide, should also be mounted on the front of each mowing unit.

Safety is a consideration. Are all the moving parts on the deck fully shielded? Is there a cover on the gearbox? When the wings are folded up, do they have safety latches to keep them in place?

The manufacturer should have knowledgeable and capable customer service and technical service personnel available.

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**Equipment ready for spring?**

- Preventive maintenance is an essential part of extending the service life of commercial equipment, as well as avoiding costly repairs and down time. The following preventive maintenance is recommended for all commercial equipment as part of a yearly spring check-up.

To prepare for the spring season, start with a thorough cleaning. Give the machine a good looking over for loose nuts and bolts, loose wires, metal fatigue and more. Repair it as needed.

For large walk-behind and riding mowers:

- Change and gap spark plugs.
- Change engine oil and filter.
- Clean carburetor or rebuild if necessary. Adjust to manufacturer's specifications.
- Clean air and fuel filters or replace if necessary.
- Remove engine shrouds on all air cooled engines, clean any grass and oil build up of shrouds and engine cooling fans.
- Inspect all cable linkages, lube and adjust.
- Inspect all mower spindles, check bearing for wear and lube.
- Sharpen and balance blades or replace if necessary.
- Adjust and lube all cables.
- Adjust governor and set RPMs to factory specifications.
- Inspect all belts, pulleys and belt guides; adjust as needed.
- Lube and adjust chains if applicable.
- Check the condition of all fuel and hydraulic lines.
- Check caster wheel bushings and bearings for wear; replace or lube as needed.

On machines equipped with the Peerless 4 or 5 speed transmissions:

- Inspect the output shaft bushings for wear, replace if necessary and refill transmission with Bentonite grease.
- Set tire pressure and level the deck.
- Check and adjust tracking.
- Check all safety switches and guards to make sure they are installed and working properly.

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The author is vice president of marketing for Alamo, Seguin, Texas. Alamo manufactures and distributes McConnel, Mott, Terrain King and Triumph power equipment.

—Ron Weingartz, General Manager of Weingartz Supply Co., Inc., writing in *The Landsculptor*.  

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