

"All Things Considered" – Specifying New Tractors and Mowers

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The growing season is approaching and you're thinking about adding a new tractor or mower to your operation. Perhaps your present equipment is due for replacement, or you've taken on more acreage. Maybe you have labor challenges and must look to machines to keep up or increase production. Or could it be you were at the most recent equipment expo and now you feel compelled to upgrade. Whatever the reason, today's grounds managers need to carefully define their requirements before specifying a new piece of equipment.

Before deciding on a particular unit, whether it is a dedicated mower or a combination of tractor and implement, performing an operations inventory can help narrow the field. As the grounds manager, you should be able to identify the task you need to perform, the time you have to do it, how many times you have to do it, the human resources available to do it, and what you can afford to spend to complete it. Of course each site and operation will have its unique requirements, but its best not to ignore the obvious.

With respect to mowers, never has there been so many brands offering so many features to perform essentially the same function. Wading through the brochures or walking the showroom floor can leave you frustrated and confused. How can they all be the same thing, only different? In order to match a piece of equipment to your requirements you need to understand what the specifications will mean to the operator, mechanic, and the budget. You can be sure that the dealers and sales reps know their specs and they know the competition's. To get what you want, you need to know what you want.

Generally speaking, the size of the area will dictate what type of equipment is most appropriate. For those who care for large tracts of turf, parks or right-ofways, tractor/mower combinations and large riding mowers tend to dominate. Managers of smaller areas as found on campuses, condo developments, or the lawn maintenance contractor will find the widest variety of options among the small ride-on and large walkbehind offerings.

Tractors

For large landscapes, parks and right-of-ways, a traditional style utility tractor still holds a place in the equipment shed. Unrivaled for it's versatility, when properly equipped it can mow, tow, load, grade, rake, blow and more. When used strictly as a traction unit for a mower, it excels at long, straight passes and lawns or fields allowing wide turns. Although tractors are appealing for their simplicity there are still a number of choices to be made.

Horsepower- Depending on potential towing and lifting jobs an adequate engine horsepower needs to be determined. Look carefully at PTO driven implements you may use now or in the future to ensure sufficient horsepower at the PTO.

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Four-wheel drive- the additional traction and front-end weight is a benefit worth the expense when mowing on slopes, hilly terrain or if the until is to be used for other tasks such as snow removal, rough grading, or tilling.

Tire size and style- If your tractor will be used for general purposes consider non-directional tires for the rear and implement tires up front. For those with a frontend loader, industrial type front tires may be more suitable. Right-of way mowing, rough grading or muddy conditions often require agricultural treads and larger front tires. Over-sized, high flotation tires reduce pressure on fine turf and permit work in marginal conditions.

Fuel type- Gasoline or diesel is still an option in some small and mid-range horsepower tractors. Fuel availability for your facility or application should be considered.

Gear drive vs. hydrostatic- The jury is still out on this one. When your tractor will be stopping and changing direction frequently than a hydrostatic transmission may be for you. When you need to calculate and maintain a constant ground speed or will be using a variety of attachments then the tried and true gear drive is favorable.

Remote hydraulics- In order to take advantage of the today's attachments, hydraulic ports have become a must have item.

Large Riding Mowers

Institutional grounds managers, golf courses and parks departments have made the four-wheeled, rear steering, liquid cooled, 72in out-front mower the standard of their industry. Their heritage is mowing large grounds, but new attachments spring up every year in an effort to make these machines year-round workhorses. Evolution in this category has been difficult to notice. These machines are a testimony to the adage that if it's not broken, don't fix it.

Mower size- Width of cut for large rotary mowers can range from 48in to 16ft, with 72in being the standard. Jumping from a 72in to a larger articulating deck or wing decks comes with significant increase in cost. Make sure you can recover the additional expense with increased production and labor savings.

Belt drive vs. hydraulic- Possibly, the most important trend in this segment of the market is the move toward hydraulically driven mowers. Hydraulics eliminates belts and their maintenance issues and there are no spindles or drive shafts to grease. You should expect less down time with hydraulics but be ready for heftier repair bills.

Discharge or mulch- Side discharge decks are proven and common. Consider a rear discharge deck to address the issues of windrowing, close trimming and safety. Be aware that mowers designed specifically to mulch clipping and those that are adapted to will not perform well in wet or high grass. Without a directional discharge they afford additional safety and may eliminate the need to manage clippings. *Fuel type*- Gas or diesel options still exist in some product lines.

Zero Turning Radius Mowers (ZTRs)

Because of their zero turning radius, speed, compact size and affordability these mowers have attracted a great deal of attention in recent years. Grounds managers with tight schedules and small crews can use these machines in areas previously left for walk behind machines. Likewise, the lawn maintenance contractor can increase productivity by having a smaller crew ride instead of walk and save space on the trailer. Zero radius turns are accomplished by independently operated hydraulic drives. While one wheel spins forward, the other spins in reverse. There is an awkward transition period when switching from a steering wheel ride-on or large walk-behinds, but its brief and painless.

Virtually all major manufacturers are present in this market. While most models look incredibly similar each manufacturer wants to be recognized for one unique feature or another. Our job is to separate fashion from function. Remember here that increase in speed refers to time to finish rather than ground speed of the machine. As with any mower, beyond a certain speed, quality of cut declines rapidly.

Mower size- Decks for ZTRs generally begin at 36in and top out at 72in. Width of gates, space between trees, size of lawns will tell you what size you need. When you are working on a property that can justify a 72in ZTR,

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you may want to think hard about a large ride-on for its ability accept a variety of attachments.

Mid-mount or out-front- ZTRs come in two configurations, both with specific advantages. Front-mounted mowers allow access under low branches, provide an excellent line of sight and on more and more models, the deck tilts to save storage space and provide easy access for inspection and maintenance. These models have a greater overall length than their mid-mount cousins. Mid-mount mowers provide a tighter turning radius and nearly all new models feature fully floating decks and anti-scalp rollers. Another user-friendly feature available in this class is the ability to change the height of cut without leaving the operator's seat.

Sit or stand-Standing riders will definitely save you space on the trailer. This may be their greatest attribute.

Air-cooled or liquid-cooled –Several manufacturers have liquid-cooled machines in their line-up. With the same level of maintenance, you should expect longer engine life from the liquid-cooled machine. Air-cooled engines reach a maximum in the 20hp range. If the mower is going to put in long hours at peak horsepower, liquid cooled machines will prevail in the long run. *Ease of service*-Access to lubrication points, belts and pulleys can be tricky. Make sure the model you specify can be maintained with reasonable effort.

Once you have decided on a particular type of tractor or mower, before heading for the dealer with your checkbook or putting the specs out to bid, make sure you've done all your homework.

- Ask you crew what they like in a machine and what they don't like.
- Speak to somebody who already owns one.
- Arrange for a demonstration at your site with your crew.

Remember to keep your head when specifying new equipment. Salespeople will always be willing to sell you what they have. Knowing what you need will allow you to make the right deal. \blacktriangle

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