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# CHALKBOARD

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## TIPS FROM THE PROS

### SELECTING MOWERS FOR QUALITY AND PRODUCTIVITY

**B**eginning in August, turf managers at golf courses and other large recreational facilities take a hard look at their mowing equipment to decide if changes are needed for the coming year. Questions arise regarding reliability, maintenance, productivity, and economy. These factors help the manager determine each mower's cost of operation, information necessary when it comes to budgeting.

However, there are factors which can't be boiled down into a dollar value. Quality of cut is the most obvious. The mowing needs of a turf manager depend largely upon the sport(s) played and the special care required for certain areas of the facility. There may be a wide variety of sites, each with its own level of quality and playability. Therefore, no one mower or mowing program is appropriate for all sports facilities.

Today it's common to find a variety of mowers at sports facilities. Rotary, reel, and flail mowers all offer special advantages. There has also been a significant amount of improvement in each type of mower in the past few years.

Reel mowers have the uncontested edge in terms of quality of cut. The cut of reel mowers has been made finer yet by increasing the number of blades on reels, changing the gearing of belt-driven or ground-driven cutting units, and using hydraulic motors to turn the reels. Grooming attachments, which precede cutting units and stand the turf up for the blades, have now spread from greensmowers to three- and five-gang models.

Although the maneuverability of reel mowers has improved, they still can't match the zero turning radius of the latest rotaries. Nothing compares to rotaries when it comes to trimming around trees and other objects. Furthermore, this maneuverability is available in rotary mowers with large widths of cut. Small, walk-behind trim mowers are almost a thing of the past.

The distribution of clippings, a draw-

back of rotaries in tall turf, has been improved by designing decks that cut clippings into smaller pieces before they exit the chute. Clipping collection systems that make dumping less frequent and more convenient, have also been developed for rotaries.

Flail mowers, long considered appropriate only for low-maintenance or utility turf, are now available with fine-cut blades. Clippings are discharged along the entire width of the cutting unit. The free-swinging blades of flail mowers will not throw rocks or other loose objects hidden in turf. This is a definite safety advantage in parks and other facilities where there are people around.

Perhaps the most significant improvement in mowers over the past 20 years has been the development of machines that are larger, yet provide a quality of cut and maneuverability approaching that of smaller units. Triplex greens mowers can compete in terms of quality with walk-behinds. Fairway units with five or seven gangs now match triplex versions and beat tow-behinds.

The purchase price increases with the size of mowers. However, that doesn't necessarily mean the annual cost of operation is greater for the larger machines.

David Legg, national sales manager of Ransomes, Inc., in Johnson Creek, WI, has carefully tabulated the annual cost of operating three different sizes of gang riding mowers. By estimating costs, such as purchase price, maintenance cost, labor, fuel, and depreciation, and figuring in the productive life of a mower in years, he has proven what manufacturers have been saying for some time. His calculations show that the increased productivity of larger mowers offsets most of the difference in purchase price among the mowers.

If you have the acreage to keep a larger mower busy, and it meets your needs in terms of cutting quality and maneuverabil-

ity, then it will actually cost less per acre to operate than smaller units, according to Legg. When you compare units with similar mowing quality, increased productivity becomes a clear advantage.

Greater mower productivity can be put to use in a number of ways. The first is to reduce the number of mowers in your equipment inventory. If a more productive mower can do the work of two less productive units, it can also free up one operator for other duties.

Another way to utilize the increased productivity of mowers is to increase mowing frequency. Dr. Robert Shearman, head of the department of agronomy at the University of Nebraska in Lincoln, has shown through research that turf quality improves with mowing frequency. He has revealed that increased mowing frequency increases shoot density. Denser turf provides a better playing surface, helps keep the rootzone cooler, reduces evapotranspiration, and resists weed encroachment.

By mowing daily instead of weekly, plant water use can decrease by as much as 30 percent, says Shearman. While daily mowing is impractical for many sports turf managers, increasing mowing frequency to two or three times per week can conserve water.

Shearman warns that maintaining turf below its optimal cutting height for any extended period of time is asking for trouble, especially during the summer. He also cautions that reducing mowing frequency significantly in the off season may have an adverse effect on turf density. The plant's response to increased mowing frequency, or to raising the cutting height to improve heat tolerance, is not rapid. It takes turf weeks or even months to adjust.

Productivity, quality, and playability are derived from utilizing the right combination of mowing equipment. One cannot be overlooked in an attempt to maximize another. Consider all these factors when you plan your equipment needs for the coming year.