

# ANATOMY OF A

# Great Mulcher

► Mulching mower attachments can be used when a new mower is not in your immediate plans.

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*It takes the right combination of deck volume, blade speed and engine horsepower to make a good mulching mower.*

Mowing is so routine—82 percent of this magazine's readers do it—that it is sometimes taken for granted. But without a good mowing program, the money you spend on fertilizer, water and other cultural practices may be completely wasted.

Every turfgrass has its own best mowing height. They are not hard, fast measurements, but do apply under what we call "normal conditions." Under con-

ditions such as high heat, raising the mowing height of cool-season turfgrasses to the upper mowing range helps prevent heat stress.

Environmental factors may cause mowing heights to be adjusted, but so does the intended use of the turf. The turf used for athletic fields and golf courses should be cut just as low as the plant will stand.

We've all heard the 1/3rd rule: don't cut off more than 1/3rd of the leaf system each time you mow.

It's been proven time and time again.

In a very real way, turf quality can be affected by mowing frequency. Overall quality will suffer if the turf is allowed to grow too high between mowings. To a point, the more frequently a turf is mowed, the better quality it is. This assumes that it is receiving optimal amounts of fertilizer and water and that the climate is favorable. Frequent mowing may also allow you to maintain a turf at what otherwise might be considered an abnormally low mowing height.

The real practical mowing issue has always been, "How can a quality turf be produced in the fastest possible mowing time?" The faster it can be mowed, the more that can be mowed, and the better the profits. Of course, the customer must be happy with the results, and this means turf quality.

How fast a mower moves in its forward gear is not the only way speed is created. For the past several years, we've been faced with a very important environmental issue that has affected us: the demise of the landfill. Bagging grass slows down any mowing operation and increases labor costs. The best way to take care of the grass clipping issue is to leave

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them on the turf; don't pick them up at all.

And the best way to leave clippings on the turf is to use a mulching mower, which cuts the clippings into very small pieces. The smaller clippings decompose much faster and tend to disappear down into the turf right behind the mower. This means no stopping to empty bags and no bags to carry off for disposal. Remember, these clippings have nutrient value and in a real sense you are giving your customer a free fertilizer application each time you mulch-mow.

Years ago, true mulching mowers were hard to find, but now every mower company has them. Some, of course, are better than others.

It takes the right combination of deck volume, blade speed and horsepower to make a good mulcher.

1) The mulching chamber must be of such volume that the freshly-cut grass clip-

pings don't go directly down into the turf, but enter a circulation pattern that allows them to be cut and re-cut several times.

Most mowing decks are not thick enough (the distance between the blade and the top of the deck mowing chamber), which is very crucial. Five inches seems to be ideal. If the distance is any less, there may not be enough volume in the mower deck to allow proper circulation of the clippings.

2) Maximum blade tip speed should be between 18,000 and 19,000 feet per second under load, measured at the blade tip. A slower tip may mean that the grass clippings don't get re-cut small enough before they fall to the turf.

3) The size of the mower must be adequate. Most commercial mowers run between 14 and 22 horsepower engines. The drive system should be designed so that the maximum amount of horsepower is available for the cutting unit. Some of the bet-

ter machines may have up to a 75 percent transfer of power from the engine to the cutting unit. This means that they can use less energy to achieve the same results as a higher-powered, less fuel-efficient mower.

A good mower should have one more very desirable characteristic: the ability to follow the contour of the landscape independently of the power unit. Very few turf areas are perfectly flat. Ideally, the deck should float in all possible directions. More than likely, that same turf area contains trees, shrubs, flower gardens and other obstacles. This means that the more maneuverable the mower, the faster it can get the job done.

Mowers are not all alike. There are big differences under their skin. Take the time to learn the features. Ask questions. Remember, the mowing program can make or break the quality of any turf, and the choice of a mower can make you more—(or less!)—money. **LM**

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