



PHOTO COURTESY: GRASSHOPPER

Efficient mowing

Decrease your mowing time while you increase the quality of your customers' properties with more efficient methods

BY JOHN C. FECH

Almost all lawn and landscape contractors offer mowing. It's boring, time consuming, requires equipment that needs regular maintenance and, toughest of all, is performed by employees that are often hard to come by. Do you need any other reasons to perform this service as quickly and efficiently as possible?

Keep ornamentals in their place

Start with good landscape design which separates turf and ornamentals in the landscape. This will reduce mower damage to ornamentals (tree damage can be costly). Operators can also mow more efficiently, since they don't have to turn and maneuver so much.

Mowing around clean and flowing bed lines is easier than odd-shaped beds. Eliminate narrow strips of turf wherever possible. They're hard to irrigate, fertilize and

mow. One of your goals should be to reduce or eliminate hand mowing and string trimming.

Work with clients to modify their landscapes to make mowing more efficient. Explain how their mowing costs might go down with a few simple changes.

The one-third rule

Follow the one-third rule — mow just one-third of the leaf blade at a time. The operator will get minimal drag on the mower blade. It takes a lot of horsepower to mow 7-in. grass plants down to a couple of inches.

Also, mowing at the proper height allows grass leaves to decompose and be absorbed into the turf canopy. Mowing through overgrown turfgrass results in unsightly clippings piling up. The most important benefit from following

this rule is healthier turf. Photosynthesis occurs in the leaf. Removing small to moderate amounts of leaf isn't harmful, and increases turf density.

The "old school" thinking on how high to mow the lawn is "mow low in spring and fall, and high in the heat of summer."

This strategy is based on documented evidence that shows that as the mowing height is raised, turfgrass root depth increases. Deeper roots are better suited to supplying the grass plant with water in summer heat.

Recently, turf researchers have begun to measure other factors relating to summer lawn care. They've noticed that raising the height of cut causes more leaf canopy to be produced, thus facilitating more

water loss from the turfgrass blades.

Other well documented occurrences have been reconsidered as well, including



Tree damage can be costly, so work with your clients to separate turf and ornamentals.

seasonal decline of the rooting depth in summer and that as the height of cut rises, the thickness or density of the turf decreases.

Raise the height

Considering all of these factors has caused turf experts to recommend raising the height a moderate amount to create more canopy, but not so much that a lot of water is lost from the grass blades.

Turf receiving little or no irrigation doesn't need to be mowed as often. In fact, mowing can

Fertilizer increases mowing

Fertilizer has a direct affect on mowing. Fertilized turfgrass produces more leaves and grows faster, meaning that your crews will have to be on these properties more often.

You can control this growth somewhat by using a slow-release nitrogen source. Sulfur coated urea, urea formaldehyde, water insoluble nitrogen, methylene urea and many organic sources encourage a moderate increase in growth for eight to 10 weeks rather than a

with a plant growth regulator (PGR). The most beneficial time to apply a PGR is when the turf is growing like crazy.

In spring, for instance, cool-season grasses can grow so fast that it's hard to manage them effectively. The one-third rule ends up being violated in many cases because the grass is growing faster than your crews can mow it. The application of a PGR will slow down the grass plants' growth rate so you won't break the rules.

The results of a PGR last for five to six weeks. Using one will increase the amount of time between cuttings three to four days, which can be desirable in certain situations.

Using a PGR adds to your overall turf maintenance budget, but it may be a worthwhile investment.

Be sharp, mow sharp

Mow with sharp blades. Dull blades leave the turf with more points of entry for foliar diseases, not to mention giving it a beat-up appearance. If the blades look "fuzzy" or "ratty" after a mowing, it's time to sharpen. Here's how:

- Remove the spark plug wire from the plug.
- Remove the blade from the shaft.
- Use a flat file to return the blade to its original condition.
- The desired angle for the cutting surface on an impact mower blade is 30°.
- Even if sharp, a blade with a



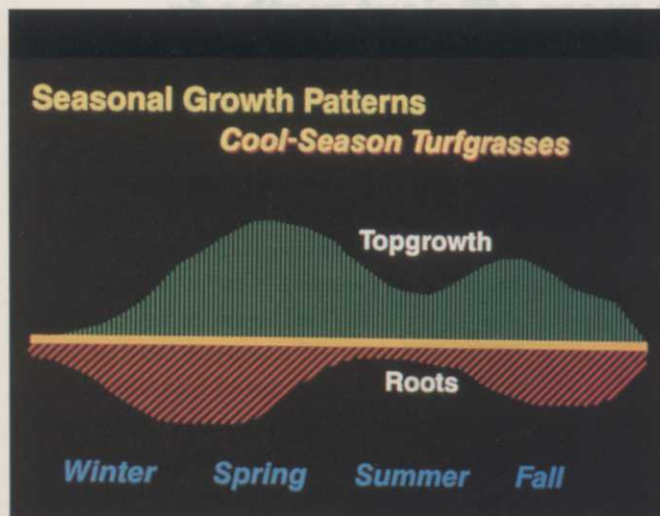
Mowing through overgrown turfgrass results in unsightly clippings piling up in trails or globs on the property.

45° angle will tear and fray grass blades. A blade with a 20° angle cuts well, but becomes dull quickly.

- After you sharpen a few blades, you'll be able to eyeball the degree of slope. Or, you can use a protractor.
- Keep replacement blades on hand. **LM**

— John Fech is with the University of Nebraska

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Turf experts have documented the seasonal decline of rooting depth in summer. This, and other recent research, has led them to reconsider the conventional wisdom about summer mowing.

cause further damage by crushing crowns and tillers. Advise clients to irrigate before you mow.

Too much water can be a problem too. If the soil is too wet, don't mow. It can cause wheel rutting, and may be unsafe for the operator too.

large increase in growth rate that lasts for only two to three weeks. They're more costly than fast-release products, but they're usually worth the extra expense.

Another approach to reducing growth rate is to treat turf

If you keep your mower blades sharp and mow often enough you may not have to pick up the clippings on clients' lawns.



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Five myths of mulched turf

In theory, mulching turf sounds great because it reduces waste, increases productivity and recycles nutrients. Still, there are some questions: Is not having to dispose of clippings worth dealing with customer complaints about clumps on their lawn? Are the added nutrients worth having to de-thatch later in the season?

If you've asked yourself these questions, it's time to learn more about mulching.

MYTH: The appearance of mulched lawns is inferior.

REALITY: Mulched lawns can look just as clean as bagged lawns as long as you have the

right machine and run it at the proper speed when the grass is in normal condition.

MYTH: Mulching causes thatch build-up.

REALITY: Thatch build-up is caused by over-fertilizing, over-watering and cutting too much of the grass blade. Mulching helps prevent thatch from developing due to the rapid decomposition of tiny clippings. These tiny clippings also feed earthworms, insects and microorganisms that improve the soil. Landscapers who mulch tend to use less fertilizer and other chemicals.

MYTH: Mowing with the discharge chute covered is

REALITY: There is more to a mulching system than plugging the discharge chute. Efficient mulching machines have specially angled, sharp mulching blades and mulching baffles that work with the existing deck baffles to maximize air flow and circulation. Since mulching has higher horsepower requirements than side-discharging applications, make sure your machines have plenty of power.

MYTH: Clients are not willing to give up bagging clippings.

REALITY: Once your clients discover the benefits of

mulching and the savings, they will be more likely to allow you to try it on their property.

MYTH: I can make more money bagging clippings.

REALITY: You can charge more for bagging because it takes more time than mulching. Due to the time saved from not collecting and disposing of clippings, however, your crew can move on to the next property faster and complete more properties in the day. **LW**

— Clover V. Shelton, Swanson Russell Associates

PROS / CONS OF MULCHING

Mulching recycles valuable nutrients.

Nitrogen, phosphorous and potassium are recycled into the turf, providing up to 25% of the lawn's total annual nitrogen requirement.

Mulching reduces waste. When bagging clippings, one challenge is finding a place to dispose of them. Disposal of bagged clippings is time consuming and, in many places, expensive.

Mulching increases productivity. With the proper equipment, mulching can reduce mowing time by 30 to 50%.

Mulching conserves water. Grass blades are 70 to 80% water when freshly cut. When grass is chopped finely and blown deep into the turf, much of this moisture returns to the soil. The dryer mulch acts as a barrier which reduces evaporation from the soil.

Mulching is safer than side-discharging. With the use of a discharge chute cover, mulching is safer than side-discharging, which throws debris toward people, pets, automobiles and homes.

Poor equipment gives mulching a bad name. Many mowers claim to be "mulching mowers" simply because the discharge chute is covered. This equipment

(which could also possess inadequate blades and low power to the cutting deck) can leave clumps of grass on the lawn.

Mulching isn't appropriate for all seasons. It is usually better to bag during spring clean-up. In the fall, when there are lots of leaves on the ground, bagging is better. When there is only a small amount of leaves on the ground, mulching is okay. Mulching also might not be the best option if grass is wet or long.

Conservative clients. It's difficult to convince clients that mulching is good for their lawn and can improve its looks. Once their neighbors choose mulching, however, they might do the same.