Keeping Turf (environmentally) Green

The current standards of the American lawn were developed during a time when we lacked awareness of the dangers of heavy reliance on fuel, supplemental water and chemical fertilizers and pesticides. We didn’t see our methods as unsustainable or our expectations as unreasonable. We no longer have that excuse. The good news is that a lawn can be attractive—and sustainable—by taking a more thoughtful, common sense approach.

When it comes to management of turfgrass lawns, there are many more options than most of us consider. Many of us fall into the rut of standard management approaches: mowing weekly, fertilizing several times a season, frequent watering and spraying to eliminate any plant that dares to interfere with our (unrealistic) goal of a “perfect” monoculture lawn. We may even apply preventive fungicides and insecticides “just in case.” All of these approaches can be altered to greatly reduce time, money and hassles and become more sustainable, while still having a beautiful lawn.

An essential first step to save time, money and headaches achieving an attractive, effective and efficient landscape and turf, is thoughtful design. Rather than starting with a wall-to-wall carpet of grass with a few undersized planting beds, a better strategy is to decide where turf serves a purpose, then fill remaining spaces with planting beds, vegetable garden, orchard, groundcovers, prairie, etc. Since turf is the highest maintenance component of any landscape and provides the least benefit, less turf is a good thing.

Design can help in other ways too. Beds can be designed with gently sweeping curves rather than tight arcs and hard angle corners so that mowing is much easier and more efficient, with fewer stops and less need for trimming.

Mulch beds around trees eliminate the potential for trunk damage from mowing and trimming—and make the job easier and faster. Better yet, trees can be included in larger planting beds. Both trees and turf will be healthier, and not in direct competition.

One of the best trenching options is simply digging a shallow v-shape trench along the edge; it’s inexpensive and allows for easy changes in size and shape. Plus you can mow right over the edge with no concerns for damage to the mower or edging. It only temporarily deters grass spreading into beds, but even bricks and plastic or metal edging won’t entirely deter grass. If you do choose an installed edging material, make sure it is low enough to mow over, eliminating the need for trimming along the edge.

The following common turfgrass management chores can be made easier, more efficient and more sustainable by following the suggestions in each category. Keep in mind that choices made in one category usually affect all the others.

**Mowing**
- Mow as needed, rather than on a preset schedule. That means more in the spring and less in the heat of summer. Try to follow the rule of limiting removal of 1/3 or less of the grass blade length.
- Mow high to keep the grass crown cooler, conserve moisture and reduce weed germination.
- Leave the clippings on to return organic matter and nutrients to the soil as well as eliminate time and effort spent in bagging.
- Keep mower blade sharp to make mowing easier for you and the mower.

**Watering**
- Water as needed, rather than on a preset schedule. If you have an automatic sprinkler, know how to adjust it to accommodate the drastically differing water needs throughout the season. A rain sensor is a great investment.
- Water less frequently but deeply to encourage a deeper, more resilient root system. If your soil is compacted clay and runoff occurs quickly, cycle the system through twice to allow the water more time to soak in. Lawns should feel firm when you walk across them. If your lawn is squishy you may be overwatering.
- Water early in the day to avoid loss from wind and evaporation and limit potential fungal problems.
- Water efficiently (don’t water pavement, make sure automatic systems are working properly, use rain sensors, etc.).
- Consider allowing summer dormancy (in very dry summers, turf will still need occasional water to survive).
- Use grasses with lower water requirements, such as fescue or drought-tolerant buffalograss.
- Allow summer dormancy of cool season grasses. Fescue cannot go dormant so some watering is required to keep it alive.

**Fertilizing**
- Fertilize LESS! Unless you found a market to sell your grass clippings, there’s no need to push growth and production of clippings. Over-fertilizing also increases water requirements and potential for disease, while sacrificing healthy root development, making the turf less drought-tolerant. Fertilize late April-early May and September for a healthy and attractive lawn.
- Use a slow release fertilizer and consider organic options like alfalfa meal and compost, which also contribute to a more diverse and beneficial soil ecosystem.

**Weed Control**
- Control as needed, spraying individual weeds or patches rather than the entire lawn. Granule weed-and-feed products are safer but less effective.
- Focus on fall weed control, the most effective time to treat most common perennial weeds.
- Allow some good weeds for their beneficial characteristics. Clover stays low and adds nitrogen. Plantain and dandelions attract butterflies. Diversity encourages more beneficial insects. Many weeds tolerate adverse conditions such as drought and soil compaction.
- If weeds are all that will grow in certain areas, repeatedly spraying is a waste of time. Instead find the source of the problem, such as compacted soil or too much shade, and correct or encourage plants tolerant of those conditions.

**Fertilization**
- To make the turf more sustainable, focus on fall applications and use slower release fertilizers.

**Mulch**
- Use mulch beds around trees to eliminate the potential for trunk damage from mowing and trimming—and make the job easier and faster.

**Grass Blades**
- Mow high to keep the grass crown cooler, conserve moisture and reduce weed germination.

**Grass Clippings**
- Leave the clippings on to return organic matter and nutrients to the soil as well as eliminate time and effort spent in bagging.

**Additional Tips**
- Use a rain sensor to adjust the automatic watering system.
- Consider using different grass species to reduce water requirements.
- Use water efficiently by adjusting the sprinkler heads and ensuring the system is functioning properly.
- Consider using compost or other organic materials to increase soil health.

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IDEAS TO HELP TURFGRASS MANAGEMENT

- **Mowing**
  - Consider using a lawn mower with a deck that pushes the grass in one direction to reduce the amount of stopping and turning required.
  - Use a lawn edger to create clean edges and reduce the need for trimming.

- **Watering**
  - Install a rain sensor to adjust watering based on actual precipitation.
  - Use drip irrigation systems to reduce water waste and evaporation.

- **Fertilizing**
  - Use slow-release fertilizers to reduce the need for frequent applications.
  - Consider using compost or other organic materials to supplement fertilizer needs.

- **Weed Control**
  - Use non-chemical methods such as manual removal or using a barrier around trees to prevent weeds from spreading.
  - Use a pre-emergent herbicide to prevent weed growth before it occurs.

- **Mulch**
  - Use mulch to reduce water evaporation and provide nutrients to the soil.
  - Consider using a mixture of mulch and compost to improve soil health.

- **Grass Blades**
  - Use a mulching mower to ensure the grass clippings are fine enough for the soil to absorb.

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**Conclusion**

By following these tips and making thoughtful design choices, it is possible to create a beautiful, sustainable lawn that requires less time, money and resources. 

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**Additional Resources**

- [Nebraska Extension Turfgrass Management](https://www.unl.edu/turf)
- [North Central Region Integrated Pest Management](https://www.ncrepm.org)
- [National Turfgrass Council](https://www.nationalturfgrasscouncil.org)

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**Note:** This information is intended to provide general guidance and may not be applicable to all situations. Always consult local Extension offices or other experts for specific advice.