

# Mow this way and that way

*No, this is not a talk on striping fields. Last month at the STMA Conference in San Jose several different mowing strategies surfaced for cool-season turf. Some said to mow taller, some said shorter, some said to use growth inhibitors to reduce mowing and others said to fertilize more to grow grass faster and make more biomass. Some said to raise the mowing height during the summer while others said to leave it at the same mowing height all the time. It can be confusing. What is the best mowing strategy?*

Mowing is one of the most routine management practices applied to grass. Some of the general mowing principles are listed below in bold type. Let's take some of the mowing principles that we all agree upon and then fit them into mowing strategies that produce the desired outcome you need for your specific athletic field situation.

## Mow taller

**A taller mowing height has deeper roots that can extract water from a larger volume of soil. This translates into better fields during dry conditions.** Athletic fields that are mowed at a 2-inch playing height are often raised to 3 inches or greater in the summer to reduce stress. This is a true statement and it is best used as a strategy to help non-irrigated playing fields survive summer heat and drought. **Raising the mowing height** does reduce summer stress but it **also reduces turf density** or the number of shoots per square inch. If irrigation is not limiting and your goal is to maximize turf cover and density, then raising the mowing height may not be a good strategy for your situation. In fact, raising the mowing height during the summer to 3 inches reduces shoot density and then lowering the mowing height to 2 inches just before starting the September football season will result in play on "stemmy" turf with low density.

## Mow shorter

**Mowing shorter increases turf density and increases shallow rooting.** Shallow rooting reduces drought avoidance so this may not be a good idea where irrigation is limited or not available. Shorter mowed turf **wears out faster** because there is less foliage, but it has **better divot resistance** because of the increased densi-

ty and abundance of shallow roots near the surface that contributes to beneficial biomass in the cleating zone of the field. **A lower mowing height strategy works best to maximize turf density and divot resistance when there is adequate irrigation and 100% turf cover.**

The current mowing strategy for many sport field managers is to "set it and forget it." Select the game ready mowing height and don't change. College and professional football fields are often mowed at 1.25 to 1.5 inches all the time. This allows for a consistent density throughout the playing and non-playing season. A slight variation on this would be to train the grass at a slightly lower mowing height throughout the spring and summer to maximize shoot density, and then slightly raise the mowing height to game ready conditions just before the season starts to improve wear tolerance.

## Sport-specific mowing heights

**Baseball.** Professional and college baseball infields are often mowed at 0.5 to 1.0 inches throughout the playing season as long as the surface is smooth. High school infields can range from below an inch to 2.5 inches depending on the bumpiness of the field and the coaches' desires. With a few years of coring, top-dressing, and level dragging bumpy high school fields can be smoothed and lowered to a 1.0 inch mowing height. There are also several rotary, walk-behind striping mowers with rear rollers that produce a smoother cut and mowing heights between 0.5 and 2.0 inches. They are durable, simple to use, and perfect for high school baseball infields.

**Football and soccer.** Football fields can range from 1.25 to 3.5 inches depending on the coaches' perception of what a good field is for their players. Soccer is generally played on fields that are mowed between 0.75 and 1.75 inches. Shorter mowing heights and light irrigation to make the leaves wet creates a faster playing surface that is often desired by better soccer teams.

Your mowing strategy may target turf density, stress resistance, divot resistance, and wear tolerance, but don't forget that your goal is to provide a level of playability that maximizes player performance and is suitable for the coach's game strategy. Hopefully there won't be more than a half inch between you. ■

## Q&A



BY DR. DAVID MINNER

Professor, Iowa State University

### Questions?

Send them to  
David Minner at  
Iowa State University, 106  
Horticulture Hall,  
Ames, IA 50011  
or email  
dminner@iastate.edu.

Or, send your  
question to  
Grady Miller at  
North Carolina State University,  
Box 7620, Raleigh, NC  
27695-7620, or email  
grady\_miller@ncsu.edu.