# USGA

## "Don't Push The Limit"

*By: Pat Gross, Southwestern Director, USGA Green Section*

Late summer is not the time to push the limit. What limit? The limit of agronomic common sense! Already we have seen misinformed micro-manager type Green Chairmen insist that the greens be cut lower for the upcoming member guest tournament, only to watch the greens gradually die after the tournament. In most cases, superintendents have no choice but to utter the cursory warnings before lowering the mowers and updating their resume. In fairness, not all Green Chairmen are like this. Some superintendents are pushing the limit themselves now that we have "silver bullet" fungicides to keep greens on life support. They are doing all they can to walk the razor's edge between outstanding putting quality and dead grass. Is there a limit to how far you should go? The answer can be found by reviewing a few basic agronomic principles and applying them to your particular course conditions.

First of all, proper mowing height is critical for healthy turf performance. Since roots grow in proportion to shoots, lowering the mowing height can cause a shrinking of the root system. A shallow root system is prone to damage in the hot surface layer of the soil and is unable to absorb water fast enough to cool the plant. With less leaf surface, there is also a reduction in photosynthesis and wear tolerance. If your course has *Poa annua* greens and a lot of play, now is not the time to lower the mowers.

Next, turf needs water. The proper amount at the proper time properly applied. Over-apply water and you eliminate air at the root zone and end up with wet, mushy greens that are prone to disease. Under-apply and you risk losing grass or dealing with stress related diseases like anthracnose and summer patch. No matter how good your irrigation system is, you are going to have to hand water greens occasionally to compensate for the lack of proper coverage and localized dry spots. Some superintendents are forced to over-apply water to leach harmful salts out of the root zone. If this is the case, maintain good soil drainage with proper cultivation practices and monitor the greens to see when leaching is necessary. Overall, I can say with great confidence that the best turf managers I have met are also the best water managers.

Turf also needs food. Summer fertility schedules should emphasize light rates at frequent intervals, otherwise known as spoon-feeding. Light and frequent applications help to sustain an even growth rate and make it possible to maintain faster green speeds. Heavy fertilizer applications cause lush slow greens. Don't over-apply nitrogen, since this can negatively impact root systems. The best results are observed at courses spraying fertilizer on their greens every seven to ten days with nitrogen rates of 0.10 to 0.15 lbs. per 1000 sq.ft. along with potassium and any other needed nutrients. You may need to adjust these rates based on the amount of play at your course and your specific soil conditions. Keep in mind that nitrogen and potassium are very mobile in the soil. If you are leaching or watering heavily, be prepared to apply more frequently.

Finally, turf needs air — especially the root system. It's no accident that you see the healthiest roots growing in the aerifier holes. Many courses had to cancel deep tine aeration this year because of the heavy El Niño rains. If your course relies on deep aeration for drainage and summer turf survival, then don't push your luck trying to get fast green speeds. Focus on conservative measures to improve the air-filled porosity of your soil such as quadratine aeration, water injection aeration, and spiking.

Healthy grass can sustain a tremendous amount of abuse, but if your course doesn't have the agronomic conditions (soil or water quality) or the resources to maintain fast greens, there is no sense pressing your luck. It is possible for courses to have healthy turf and relatively fast green speeds as long as you don't push the limit of agronomic common sense.

## Did You Know?

Legislation to increase the minimum wage continues to move in the Legislature. AB 1184, which calls for a $6.50 per hour minimum wage as of March 1, 1999, recently passed the Senate Appropriations Committee and now moves before the full Senate for consideration. In California, the minimum wage has been raised four times over the last 22 months. Employers now pay $5.75 per hour, .60 cents an hour more than the federal minimum wage.