

SHARP BROS. SEED CO.

BUFFALO BRAND

101 E. 4th Street Road

Greeley, CO 80631

970-356-4710

Buffalo.GXY@SharpSeed.com



IRRIGATION

COLORADO UNDER STRESS

*By Brooks Dodson, Senior Assistant Turf Manager,
Denver Broncos INVESCO Field at Mile High*

I am sure by now that everyone has heard or is being effected by the drought conditions that we are experiencing right now here in Colorado. And being that we live in a high desert region to begin with, our watering practices are extremely important for the overall health of our turf. Combine the drought conditions and arid region with intense sunlight, you have the recipe for dead turf. Water restrictions will not make this problem any easier on you, the turf manager. So I have compiled a list of things that may help you operate your irrigation system/program more efficiently during these periods of stress.

UNDERSTAND YOUR TURF AND SOIL TYPES

By knowing how your field reacts to certain stresses, you can minimize the damage or setbacks that may occur to the turf. Each turf grass stand reacts different than the rest and within the same stand; one area may react different than another. It is our job to understand and adjust to these differences. By knowing the type of soil we have in our root-zone, we can make the necessary adjustments that are important for the overall health of our turf. A lot of worry and stress could be eliminated by adjusting to the needs of the turf and not to the ease of your management.

SET A RAIN GAUGE

Its best to start talking about precipitation, whether it is rain or irrigation water, in inches. This will allow you to better assess the amount of precipitation that your turf grass stand is receiving. It also allows you to determine the amounts that you may or may not need to apply in the upcoming days, etc. The best way to figure out how many inches your system puts out in one hour is to set out a rain gauge and run a cycle for thirty minutes. Multiply the amount in the rain gauge by two and you have “inches per hour”. You now know how long it takes you to get one inch of water over an area and you can adjust your watering times to the amount that you wish to apply. This will save you time, money and water.

FREQUENCY

There are many different opinions on how much and how often to water. Deep, in frequent watering allows the water to work deeper into the soil, replenishing the water reserves in the soil. This may enhance rooting depth and create more root mass in your profile, which in turn may allow your turf to go longer between irrigation days or cycles. Also, by watering deeply and infrequent, you allow the surface and canopy to

dry out a bit. This will help reduce the risk of any fungal pathogen development. To cool the canopy and soil between cycles, apply light shots of water (syringing) when the grass shows signs of stress during periods of heat and intense sunlight. Syringing cycles only need to be about four minutes in run time.

Although deep, infrequent watering is good in theory it may not work in every situation. If the soil is compacted, you may need to water more often in lighter amounts. If you over water a compacted area, most of the water will runoff and will not be available for the plant to use. This is a waste of time, money and more importantly, water. Also, watering more frequently will reduce the depth of your roots because the water requirements are being satisfied towards the top of the root-zone. Again, it all comes back to knowing your turf and taking the time to make the proper adjustments that will best suit the needs of your field(s).

USEFUL TIPS

The best defense against any form of stress, be it disease, mechanical or climate is to grow healthy turf. Soil and water testing are good tools to use to find out what is going on with your field. Soil testing will help you determine nutrient levels in your soil profile. Those numbers will allow you adjust your fertility accordingly. Soil test well also determine the pH of you root-zone. Here in Colorado, our soil pH is usually fairly high. One reason for this, may be the pH of the water that you are irrigating with. Have your water tested to determine the quality and pH of your water. The test results may further help explain what and why things are happening the way they are with your field(s).

Timing of irrigation is also important, not only for events but also for daily scheduling. Timing your watering around events is something that all of us must deal with. Trying to apply enough water to get us through the event but yet still maintaining a safe and playable field, is an

ongoing battle. In fact, with the weather in Colorado, your water timing for events changes daily and even weekly. Its not only the timing around events that is important, its also the time of the day that you apply the water that is important. By watering at night or early morning, you are applying water the grass requires and then during the day, giving the grass a chance to dry out a bit. This drying again helps reduce the risk of disease and also allows the field to be safely used during the day. Also, when applying water at night or early morning, less evaporation may occur. This will allow more of the water to infiltrate the soil and become more usable by the plant. In turn, this will help provide enough water to get the grass through the heat and intense sun light of the day. If stress does appear during the day, syringing, as explained above, will provide quick relief of the stressed area(s).

One final tip that may save you a lot of headache is to check your sprinkler heads. Take the time to walk your irrigation zones to make sure that each head is rotating and spraying properly. Check to make sure that each head is giving the field proper coverage, generally head to head coverage depending on design. Often times this is not done because of time, but it will save you more time and money in the end because you will not have to replace the dead areas. The time you take in doing this will ensure that your irrigation system is helping you to achieve a healthier and a much better looking field.

Each field has it own characteristics and it is our job to know and understand how it reacts to particular situations. Now that we are going into spring already under sever drought conditions, it is job as the turf manager to figure out how to maintain the standards that we have set for our fields and remain within our budgets and restrictions that may be set by whomever. Is it easy, heck no, but by taking the time to figure out your field and your irrigation system it may help you make it through the tough Colorado weather patterns and maybe even help keep your sanity.