

## **An Update on Tall Fescue**

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"Mirror, Mirror on the wall, who's the prettiest of them all." Yes it is that time of year when we start trying to select "THE BEST" tall fescue cultivar. And the increase of options continues to grow. In order to help answer this question, The University of Georgia participates with The National Turfgrass Evaluation Program (NTEP) in cultivar evaluations. In the last completed trial which started in 1996 and ended in 2000, there were 132 entries. The current trial, planted in the fall of 2001 has 162 entries. Turfgrass breeders across the country are continuing to work hard to improve turf type tall fescue for disease resistance, drought tolerance, and overall turf quality.

Before exploring cultivar selection options let's review some other important keys to success. Since turf type tall fescue became popular, most professional turf managers have said that lack of water or drought was their number one problem. If they could get the customer to irrigate, they would have more success. There must be something to this since most heavy reseeding years follow droughts rather than normal or high rainfall years. So this should be a good year for reseeding.

Of course, related to drought are soil conditions. Good, deep tillage prior to planting provides significant short and long term dividends for turfgrass survival. The hard, compact high clay subsoils in north Georgia, make rooting tough on plants. The looser the soil the more water from irrigation or rainfall penetrates into the soil. It is always amazing to see a one-inch rain and then see the soil only wet down to one to two inches. So even when we get normal rainfall, much of that simply runs off and never enters hard, compact soils.

Of course we also see the locations that water improperly, like too often and too little, which helps increase shallow rooting and disease problems. But most tall fescue problems tend to be associated with too little water, not too much.

Another common problem are high seeding rates. All tall fescue research done through NTEP has used a seeding rate of five pounds, that's right, five pounds of seed per 1000 square feet. Yes this seeding rate means a slower establishment time and a stand of grass that has wider, less attractive leaf blades. However, it also means that when stress does occur, there are larger, more vigorous plants that are less prone to drought and disease problems. So take note, if you want that perennial ryegrass look of fine, dense turf from tall fescue, you will also get more drought stress, disease and reseeding.

Obviously then, related to seeding rate, is reseeding rate. If a stand has been thinned out 50% and it is reseeded at five pounds per thousand, then if successful, you end up with seven and one-half pounds per thousand, or 50% more than ideal. Of course for initial establishment or reseeding the conditions must be considered. If the soil is not well prepared and irrigation is poor, there will probably be more seedling loss. The point is, if

you have been having great looking tall fescue lawns in the spring, and plenty of disease and stand loss in the summer, maybe your stand is too dense.

Once the grass is up, what is the fertilizer program? Well most of our NTEP work has been with two to four pounds of N per thousand square feet per year. The natural, dark color of the newer grasses allow for less N to maintain good color. However, too many fertilizer programs are set as though lighter green Kentucky 31 was the grass being used. Probably, something less than four pounds will do fine. Particularly when you consider the lower N rates often mean lower water needs and less mowing. Just like the higher seeding rates, high N rates may also have a significant down side during stress.

Fertilizer timing is also important. To avoid the winter and spring discoloration, the plant needs to be well established and growing before it gets too cold. Otherwise you may be left to look at discolored leaf tips that will not change until spring when temperatures rise and growth begins again. On the other hand, if too much N is applied in April and May, the plant may be prematurely placed into heat and drought stress by the high N level. Finally, this excess N may end up being used more by crabgrass and other weeds during the summer.

That leads to the next point, which is weed control. With the available choices of preemergence herbicides, there is little reason not to have reasonable weed control. Like everything else, timing is important.

If you get a nice stand of grass, what's going to be the mowing height? Again, most NTEP work is done at heights of two to three inches. These new tall fescues generally perform better at this height. And, always keep in mind that as drought stress becomes an issue, higher mowed turfgrasses are able to develop deeper rooting systems, hence better survival. However, if these grasses are cut high and receive significant rainfall, the dense canopy may encourage more disease problem.

Now back to which grass: The top performing entries in Georgia and generally nationally when averaged over the four years from 1997 - 2000 were

Rembrant	Plantation	Millennium	Dynasty
Masterpiece	Crossfire II	Jaguar 3	Olympic Gold
Wolfpack	Reserve	Coronado Gold	

A second group, generally not statistically as good as the first included:

Shenandoah II	Scorpio	Coyote	Rebel Sentry
Mustang II	Tar heel	Oncue	Southern Choice
Dominion	Barlexus II	Rebel 2000	Genesis
Chapel Hill	Bravo		

Entries no different than Kentucky 31 included:

Barrera	Arid II	SR 8210	Zanzibar
Duster	Sr 8500	Sunpro	Tracer

Regiment	TF 66	Lion	Tomahawk + E
Marksman	Shortstop II	Titan 2	Leprechaun
Good-en	Helix	Equinox	Axiom
Arid			

Of the top performing entries from the 1997 - 2000 study, Rembrandt, Masterpiece, Wolfpack, Plantation, Millennium, Jaguar 3, Dynasty, and Olympic Gold were included in the 2001 study and continue to be in the top performing categories of turf quality and color. The disease Pink Patch was identified at the June rating and of the varieties, Millennium, Dynasty, Wolfpack, Masterpiece, and Rembrandt were least affected.