THE EVALUATION OF DROUGHT RESISTANCE OF SOME VARIETIES OF COOL SEASON PERENNIAL GRASSES USED FOR TURF

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Abstract
France, Germany, Netherlands and Great Britain are involved in the breeding process of a large variety of species and varieties used for turf. They have a major objective of testing the performance of the new turf varieties in diverse climatic areas from countries where they intend to sell. These tests or trials are meant to evaluate the performances of a large number of varieties and doing so, to indicate which one is best adapted to a specific climatic area. One of the most important indicators of turf quality is represented by the drought resistance of turf, because of the latest trend in turfgrass management towards a low input management, specifically a reduced irrigation and fertilization, or even no irrigation at all. For this specific reason, creating new and improved cultivars that can resist to moisture stress has become a key factor in turfgrass breeding. In this research we have evaluated eighteen imported varieties and one romanian variety which represented the control factor. The evaluation of turf drought tolerance was done using a visual rating system, with ratings from 1-9, where 9 represents the best drought resistance. The data was collected in the years 2005 and 2007. The results indicated that the species with the best drought resistance was *Festuca arundinacea*, where two varietes, Montserrat and Starlett were rated 9 in the year 2005. The english ryegrass varieties had a good drought tolerance only in the year 2005, but later, in 2007 they failed to resist at extended drought. Three of five imported varieties were rated lower than control variety and only Capri and Keystone were rated 3.7 the same as the romanian variety Mara.

Key words: turf varieties, drought resistance, visual ratings

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