

Consumer Mixture Drought Trials

By Dr. Florence Sessoms

In the Twin Cities area, up to 20% of treated drinking water is used on turfgrass landscapes. In the context of climate change, water availability for home-lawn irrigation is becoming increasingly limited. The objectives for our research were to evaluate the drought tolerance of available consumer turfgrass seed mixtures or blends under two different mowing heights. In the fall of 2016 and 2017, 29 different mixtures and blends of turfgrass seeds composed of one to four species were established under a fully-automated rainout shelter at the Turfgrass Research, Outreach, and Education (TROE) Center on the St. Paul Campus at the University of Minnesota. Each seed mixture or blend was replicated six times in 1 m² plots to allow for three replications at two mowing heights of 5 cm and 8.9 cm. The drought period began on June 1, 2017 (Year 1) and June 4, 2018 (Year 2) and continued for 60-days, followed by a 28-day period of recovery. Green stability was significantly better for the 8.9 cm mowing height than for the 5 cm mowing height. Species composition affected green stability, overall turf coverage and recovery, with tall fescue and fine fescue species demonstrating the greatest tolerance to drought.

