Regulation of ‘Georgia 5’ Tall Fescue

‘Georgia 5’ tall fescue (Festuca arundinacea Schreb.) (Reg. no. CV-53, PI 562695) was developed by the Georgia Agricultural Experiment Stations and released jointly with the USDA-SCS in June 1992. It was tested experimentally as GA-5, GA-5 +, GA-5 EI, and GA-5-FI.

Georgia 5 tall fescue is a five clone synthetic cultivar. Twenty-one clones were collected by the USDA-SCS from areas subject to water and temperature stress throughout the eastern USA and maintained in a field at the Americus Plant Materials Center, Americus, GA, for approximately 10 yr from 1967 to 1977. In 1977, the nine best surviving plants were poly-crossed at Athens, GA, and their poly-cross progeny were tested for survival and forage yield for 2 yr at Americus. The five best clones were then selected based on their poly-cross progeny performance to constitute the parents of Georgia 5. Seed from the five parental clones were increased through the syn 3 generation. The syn 3 generation is designated as breeder seed of Georgia 5.

Georgia 5 tall fescue is an endophyte-infected cultivar (causal fungi: Acremonium coenophialum Morgan-Jones and Gams) with level of infection in the breeder’s seed >75%, i.e., >75% of the germinating seedlings are infected with the endophyte as determined by analyzing a random sample of 8 wk old seedlings for the presence of the endophyte as described previously (1). It is adapted to the Southern Coastal Plain region of the southeastern USA (region from southern Texas through southern Georgia, northern Florida, and the eastern Carolinas) and low maintenance, stress areas subject to high temperature and low rainfall in the transition zone (northern Mississippi through northern Georgia including Tennessee). It has wide leaf blades and medium early maturity with an average heading date 5 d earlier than ‘Kentucky 31’ and 7 d later than ‘AU Triumph’ at Athens, GA.

When tested against other endophyte-infected and endophyte-free tall fescue cultivars, Georgia 5 showed superior forage yield and persistence in clipped plots in the Southern Coastal Plain region (2). The endophyte-infected version of Georgia 5 is superior in forage yield and persistence to its endophyte-free version in the endophyte as described previously (1). It is adapted to the Southern Coastal Plain region of the southeastern USA (region from southern Texas through southern Georgia, northern Florida, and the eastern Carolinas) and low maintenance, stress areas subject to high temperature and low rainfall in the transition zone (northern Mississippi through northern Georgia including Tennessee). It has wide leaf blades and medium early maturity with an average heading date 5 d earlier than ‘Kentucky 31’ and 7 d later than ‘AU Triumph’ at Athens, GA.

When tested against other endophyte-infected and endophyte-free tall fescue cultivars, Georgia 5 showed superior forage yield and persistence in clipped plots in the Southern Coastal Plain region (2). The endophyte-infected version of Georgia 5 is superior in forage yield and persistence to its endophyte-free version in the Southern Coastal Plain region.