

Abstract:

Ten sorghum cultivars were grown at two locations and for two seasons in a randomized complete block design with three replications. The effect of location on flowering time of the ten cultivars was inconsistent, but generally they took a longer time to flower in February than in July sowing date at the two locations. A wide range of variability was noticed for most characters, and the cultivars were significantly different for all characters in the two seasons and two locations. The highest broad sense heritability estimate was shown by plant height (98%), while the lowest was exhibited by total fresh weight (43.6%). High heritability estimates coupled with high genetic advance were shown by plant height and fresh weight/plant. Most characters were highly and significantly affected by season, location, cultivar and their interactions. Abu Sabeen, Saffra and Gadam Elhamam emerged as high forage yielders by the ranking procedure. The correlation as well as the stepwise multiple regression analyses showed that fresh weight/plant, plant height and main stem thickness were the main determinants of forage yield.