

Estimation of the Nutritive Value of Local Forage Cowpea Cultivars in Different Environments

Authors : Salem Alghamdi

Abstract : Genotypes collected from farmers at a different region of Saudi Arabia as well as from Egyptian cultivar and a new line from Yemen. Seeds of these genotypes were grown in Dirab Agriculture Research Station, (Middle Region) and Al-Ahsa Palms and Dates Research Center (East region), during summer of 2015. Field experiments were laid out in randomized complete block design on the first week of June with three replications. Each experiment plot contained 6 rows 3m in length. Inter- and intra-row spacing was 60 and 25cm, respectively. Seed yield and its components were estimated in addition to qualitative characters on cowpea plants grown only in Dirab using cowpea descriptor from IPGRI, 1982. Seeds for chemical composite and antioxidant contents were analyzed. Highly significant differences were detected between genotypes in both locations and the combined of two locations for seed yield and its components. Mean data clearly show exceeded determine genotypes in seed yield while indeterminate genotypes had higher biological yield that divided cowpea genotypes to two main groups 1- forage genotypes (KSU-CO98, KSU-CO99, KSU-CO100, and KSU-CO104) that were taller and produce higher branches, biological yield and these are suitable to feed on haulm 2- food genotypes (KSU-CO101, KSU-CO102, and KSU-CO103) that produce higher seed yield with lower haulm and also these genotypes characters by high seed index and light seed color. Highly significant differences were recorded for locations in all studied characters except the number of branches, seed index, and biological yield, however, the interaction of genotype x location was significant only for plant height, the number of pods and seed yield per plant.

Keywords : Cowpea, genotypes, antioxidant contents, yield

Conference Title : ICSR 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020