

Performance of Different Genotypes of Guar (*Cymopsis Tetragonaloba* (L.) Taub) Under Agro-Climatic Conditions of North Coastal Zone of Andhra Pradesh

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ABSTRACT

Guar (*Cymopsis tetragonaloba*(L.)Taub) known as drought tolerant annual crop having high export value for its edible guar gum powder. The crop is having wider adaptability, to introduce in the non-traditional area a study has been taken up to identify suitable genotype/variety for the local agro-climatic conditions of north coastal zone of Andhra Pradesh. An experiment was conducted at RARS, Anakapalli, Viskhapatnam district. The 20 genotypes viz., RGM-111, RGC-936, G-32, GG-1, G-36, G-37, GAUG-9005, GAUG-9003, HG-56-3, RGC-1002, RGC-986, RGM-112, G-16, G-42, RGC-1025, G-39, G-28, G-3, G-4 and G-5 was studied with 2 replications in RB Design for the vegetative growth, seed yield and seed quality. The parameters like plant height, number of branches per plant, days to 50% flowering, number of days taken to maturity, number of pods per plant, number of seeds per pod and seed yield per hectare were observed. Similarly, the observations were recorded for the purpose of gum powder for their quantitative characters viz., weight of the endosperm, weight of non-endosperm, weight of gum at semi solid state, recovery percentage of endosperm and weight of the gum powder from the unit of the seed sample. Among the genotypes, the highest seed yield of 937.98 Kg/ha in the genotype RGM-111 followed by GG-32 (627.67 Kg/ha) which is on par with the genotype RGC-936 (624.97 Kg/ha) was recorded. The significant highest weight of the endosperm 30.25g in RGC-986 followed by RGM-111 (28.75 g) was recorded. Similarly, the significant highest weight of gum powder 25.40 g in RGM-111 followed by RGC-986 (24.90g) was recorded. Further it is concluded that for the seed yield of the genotypes RGM-111 and RGC-93 and for the recovery percentage of endosperm and also for the weight of the gum powder the genotype RGM-111 and RGC-986 is found superior for guar cultivation in the local agro-climatic conditions of North Coastal Zone of Andhra Pradesh.

Key words : Agro Climatic, Genotypes of Guar.