

Influence of Methods and Time of Sowing on Growth and Forage Productivity of Sorghum and Pearl Millet Plants

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TWO FODDER species namely millets and sorghum grass were grown at Experimental Research – farm of Desert Research Centre at south of Sinai, Egypt (160 km north east of Cairo), during summer seasons 2004 and 2005. Objective of this study was to quantify growth, biomass production and chemical composition of two fodder species . Three sowing dates (1 April, mid- April and 1 May) and two sowing methods (row and in ridges) were tested under saline conditions.

The two plant species were irrigated with ground brackish well- water about 4000 p.p.m. Results summarized are as follows: The maximum yield and the most growth characters were obtained at sowing date mid-April followed by early May. The greatest yield was observed when sowing in hills on ridges methods. Growth characteristics were increased with sowing in hills on ridges comparing to sowing in rows. Millets was surpass in production, growth and chemical content on sorghum plants.

Interactions between the three main factors were significant for growth and productivity.

Keywords: Pearl millet. Sorghum. Biomass. Fodder, Saline, Rows, Ridges.

The pressure of human population is increasing at an alarming rate in developing countries. So, necessitates productivity increases of all production inputs, but particularly soils. The use of marginal lands for production is therefore also increasing. On such of waste lands in salt- affected soils such as the soil of Wadi Suder region (South of Sinai). The successive irrigation with the brackish – saline water from wells led to salt accumulation in the soils profiles. So the soil salinity is considered as the major problem in this area.

In summer season flocks suffer from lack in forage. Cultivated annual grasses species are commonly used to provide fodder such as sorghum or pearl millet plants, the two species under study have high dry matter production, drought tolerance and ability to regrowth after grazing or cutting.

In order to ameliorate and utilize the lands, certain agricultural productions techniques could be employed in order to increase productivity of saline soils. This includes aspects such as sowing dates and sowing methods because the yields are