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Land configuration and nutrient management for increased productivity of organic guar gum in rainfed condition

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ABSTRACT : A field experiment was conducted during 2013-14 at Agronomy farm, Dr. PDKV, Akola to study the effect of Land configuration and nutrient management for increased productivity of organic guar gum in *rainfed* condition. Opening of furrow in each row and alternate rows permit to drain excess moisture which resulted in increased growth, yield (270.17 kg/ha) and soil moisture content (38.80%) compared to flat bed configuration. The protein content (27.65%) and gum content (27.05%) were increased marginally with land configuration of opening of furrow in each or alternate rows. Gross monetary return **(**14773 /ha) and Net Monetary Return (Rs. 5703 /ha) was also higher with land configuration of opening of furrow in each row compared to other configurations. Organic source of nutrient Vermicompost-2.0 t/ha increased Seed yield (281.71 kg/ha), protein content (27.95%) and gum content (27.58%) compared to FYM-2.5 t/ha and Soybean compost-2.0 t/ha. Soil moisture content (34.31%), consumptive use (239.91 mm) and MUE (1.14 kg/ha mm) was slightly improved with Vermicompost-2.0 t/ha followed by FYM-2.5 t/ha and Soybean compost-2.0 t/ha. Gross monetary return **(**14811 /ha) and Net Monetary Return (Rs. 5671 /ha) was also higher in treatment receiving Vermicompost-2.0 t/ha as compared to FYM-2.5 t/ha and Soybean compost-2.0 t/ha.

Key Words: FYM, Guar gum, organic, rainfed, soybean compost, vermicompost.