

428. **Ranga Rao, V., Ramachandram, M. and Rama Mohan Rao, M.S. 1976.** Plant density and geometry in relation to varietal differences and seasonal variations in rainfall for increasing and stabilizing production levels of winter sorghum in drylands. *Indian J. Agric. Sci.*, 46(12): 559-566.

Effect of plant density, row spacings and planting pattern on the performance of local and improved varieties of winter sorghum was determined using systematic and conventional population designs. The profile moisture at the cessation of rains markedly influenced the yield as well as the response of varieties to plant density. The optimum plant population was lower when the moisture was limited. In dry years, 'CSH-3' gave maximum grain yields, and late types failed. Under favourable moisture conditions, the response of 'CSV-7R' to plant density was better than that of 'M 35-1'. In general, plant density rather than plant rectangularity was more critical for successful production of winter sorghum. Thinning of 30-35 days old plants could be undertaken if the post-sowing rains did not occur.