



Effect of nitrogen and zinc on growth and yield of fodder sorghum [*Sorghum bicolor* (L.) Moench] varieties

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Abstract : A field experiment was conducted on loamy sand soil of the Agronomy Instructional Farm, Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar to study the, effect of nitrogen and zinc on growth and yield of fodder sorghum [*Sorghum bicolor* (L.) Moench] varieties during summer season of 2011. Eighteen treatment combinations consisted of two varieties, viz., GFS 4 and GFS 5; three levels of nitrogen viz., 40, 80 and 120 kg N ha⁻¹ and three levels of zinc viz., 0, 2 and 4 kg Zn ha⁻¹ were tried in Factorial Randomized Block Design with three replications. The results indicated that among the variety of fodder sorghum GFS 5 performed better in respect to growth parameters and green forage (257 q ha⁻¹) as well as dry matter (119 q ha⁻¹) yield than variety GFS 4. Application of 120 kg N ha⁻¹ increasing green forage (262.00 q ha⁻¹) as well as dry matter yields (120.00 q ha⁻¹) over 40 kg N ha⁻¹ and 80 kg N ha⁻¹. Application of zinc @ 4 kg Zn ha⁻¹ was found significantly superior and produced highest green forage (254 q ha⁻¹) and dry matter yield (120 q ha⁻¹) than 2 kg Zn ha⁻¹.

Key Words : Varieties, Nitrogen, Zinc, Fodder sorghum

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