



## RESEARCH PAPER

# Differential responses of yield and quality to organic manures in sweet corn [*Zea mays* (L.) *saccharata*]

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**Abstract :** The experiment has twenty four treatment combinations comprising of six main plots, organic manures mainly green leaf manure (GLM), enriched compost, FYM and vermicompost in combinations compared with RDF and FYM + RDF and four sub plots, liquid organic manures mainly bio-digester liquid manure, *Panchagavya* and cow-urine. The treatments comprised of application of 7.5 t FYM + RDF (100:50:25 N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O kg ha<sup>-1</sup> + 10 kg ZnSO<sub>4</sub>) (RPP) and (100:50:25 N, P<sub>2</sub>O<sub>5</sub>, K<sub>2</sub>O kg ha<sup>-1</sup> + 10 kg ZnSO<sub>4</sub>) (RDF) alone exhibited significant effects on yield of sweet corn viz., with husk and without husk cob weight per plant, fresh cob yield, fresh and dry grain weight per plant and quality parameters viz., protein content, reducing and non-reducing sugar, total sugar, total soluble solids and total carbohydrates content in sweet corn kernels of sweet corn. Among the organic manurial combinations GLM + EC + VC (top dressing at GGS) recorded higher yield and quality of sweet corn with all liquid organic manures over basal applied vermicompost. Similarly, bio-digester and cow urine @ 10 per cent spray noticed higher yield and quality of sweet corn over control. Irrespective of organic manures, the dehydrogenase activity were significantly higher with GLM + FYM + VC (top dressing at GGS) and GLM + EC + VC (basal) equivalent to RDN over RPP and RDF.

**Key Words :** Sweet corn, Organic manures, Liquid organic manures, Fertilizer, Yield, Dehydrogenase activity, Quality

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