



Performance of Knolkhol (*Brassica oleracea* L. Var Gongylodes) under Differential Substitution of Nutrients through Organics in Irrigated Plains of Shiwalik Foothills

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Abstract: An experiment was conducted to evaluate the performance of knolkhol under differential substitution of nutrients through organics. The vegetative growth, yield, quality, total nitrogen uptake and total potassium uptake were significantly influenced by differential substitution of nutrients through Organics and improvement in all these parameters were observed in *rabi* 2016-17 over *rabi* 2015-16. Significantly highest vegetative growth at all the stages and yield of knolkhol was recorded with recommended dose of fertilizer (100 N: 50 P₂O₅: 50 K₂O kg ha⁻¹ and FYM @30t ha⁻¹) which was statistically at par with vegetative growth of knolkhol with 75% NPK + 25% N through vermicompost and FYM and 75% NPK+25% N through Vermicompost. Various treatments of differential substitution of nutrients through organics increased the knolkhol growth, yield and quality. Highest knolkhol yield (83.33t ha⁻¹ and 86.53t ha⁻¹) were recorded with recommended dose of nutrients. Quality parameters like relative chlorophyll content in leaves and ascorbic acid concentration in knob of knolkhol were influenced considerably by the application of different treatments in which substitution was done through organics and highest quality parameters were recorded with treatment 100% N through FYM. Total N and total K uptake in knolkhol were also significantly influenced with differential substitution of nutrients through Organics.

Keywords: FYM, Growth, Knolkhol, Organics, Quality, Vermicompost, Yield
