



RESEARCH PAPER

Influence of various organic manures on growth, yield and economics of sprouting broccoli (*Brassica oleracea* L. var. *italica*) cultivar Green Head

Suneeta Singh* and Anil Kumar Saxena¹

Department of Horticulture, School of Agricultural Sciences, SGRR University, Dehradun (Uttarakhand) India
(Email : drsuneetaksaxena@gmail.com)

Abstract : A field experiment was designed and conducted during *Rabi* season of 2020-21 at Horticulture Research Block, Department of Horticulture, School of Agriculture Sciences, SGRRU, Dehradun, Uttarakhand to investigate the “Influence of various organic manures on growth, yield and economics of sprouting broccoli [*Brassica oleracea* (L.) var. *italica*] cultivar Green Head”. The experiment was laid out in Randomized Block Design with three replications and nine treatments. The treatments comprised following levels of different organic manures with different concentrations viz. T₁ (control), T₂ (FYM@ 10t/ha), T₃ (Vermicompost @ 5t/ha), T₄ (cow urine @50%), T₅ (FYM @5 t/ha + Vermicompost @ 2.5 t/ha) T₆ (FYM @5 t/ha + cow urine @25%), T₇ (Vermicompost @ 2.5 t/ha + Cow urine @ 25 %), T₈ (FYM@ 10 t/ha + Vermicompost @ 5t/ha + Cow urine @50 %) and T₉ (FYM@ 5 t/ha + Vermivompost @ 2.5 t/ha + Cow urine @ 25%). The sowing of sprouting broccoli cultivar “Green Head” was done on 11/01/2021 and final harvest done at 14/04/2021. Observations on various growths, yield attributes and economics were recorded. The results revealed that treatment T₉ (FYM@ 5 t/ha + VC@ 2.5 t/ha + Cow urine@ 25%) was found to be most effective in terms of plant height (42.15cm), number of leaves (19.20cm), stalk girth (16.60cm), stalk length (13.73cm), days taken to head initiation (79.87days), total head weight (391.35g) and net return (Rs. 93,9194) whereas maximum B: C ratio (1:23.80) was recorded in T₇ (Vermicompost@ 2.5 t/ha + Cow urine @ 25 %).

Key Words : Organic manure, Vermicompost, Cow urine, FYM, Head initiation

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*Author for correspondence:

¹Department of Soil Science, School of Agricultural Sciences, SGRR University, Dehradun (Uttarakhand) India