

Enhancing sweet basil (*Ocimum basilicum* L.) yield, soil health and economic returns using *Jeevamrit* and *Kunapajala* in the Shivalik Himalayan Region of India

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ABSTRACT

*A field experiment was conducted during the Kharif season of 2019 at Medicinal Plants Research and Development Centre (MRDC) of G.B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand to study the effect of jeevamrit and kunapajala on herbage yield and quality of sweet basil (*Ocimum basilicum* L.). The experiment was laid out in Randomized Block Design with eight treatments replicated thrice. Treatments i.e. T₁: recommended dose of fertilizer (RDF) (120-60-40) kg/ha, T₂: 15 t/ha farmyard manure (FYM), T₃: 500 l/ha kunapajala, T₄: 1000 l/ha kunapajala, T₅: 500 l/ha kunapajala + 7.5 t/ha FYM, T₆: 500 l/ha jeevamrit, T₇: 1000 l/ha jeevamrit, T₈: 500 l/ha jeevamrit+ 7.5 t/ha FYM. Results revealed that application of 15 t/ha FYM showed lowest bulk density (1.552 g cc⁻¹) and highest organic carbon content (0.860%). The maximum available N (212.75 kg/ha), P (24.31 kg/ha) and K (203.53 kg/ha) was recorded under treatment T₁. Significantly highest population of bacteria (20.01×10⁴ CFU/g soil), fungi (5.00×10⁴ CFU/g soil) and actinomycetes (9.00×10⁴ CFU/g soil) recorded in T₈. Treatment T₁ recorded highest net return (₹ 2,54,810/ha) as well as herbage yield (271.86 q/ha).*

Keywords: *Jeevamrit, Kunapajala, net return, *Ocimum basilicum*, organic, yield.*