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Testing And Integrating Vermi-Fertilizer With Chemical Fertilizer And Simple Compost On Mung Bean (*Vigna Radiata*)

Mung bean (*Vigna radiata* L.) is a short-duration crop that delivers a source of protein. Like leguminous crops in nature, mung bean requires little nitrogen but other essential elements. Mung bean productivity and nutrition value are not increasing to meet the requirements of the population. Vermicompost increases the chemical and physical properties of soil as well as the availability of nutrients to plants. An experiment was conducted at Student Research Farm, Department of Agronomy, University of Agriculture, Faisalabad. The sequence of experiments was randomly replicated thrice to minimize the error under the Randomized Complete Block Design (RCBD). An experiment was comprised of seven different compost, vermicompost and chemical fertilizers treatments. Data regarding emergence parameters, agronomic parameters and the biochemical parameter was observed. The observed data were analyzed through analysis of variance and treatment means at 5% productivity level by LSD test. The results obtained from the analysis of data were significant. T1 treatment showed maximum results as compared to other treatments. Highly significant result of agronomic parameters was observed. T1 showed maximum crop emergence (115.33m⁻²), Plant Height (58cm), Trifoliolate Size of the fifth leaf (41cm²), Number of viable nodules/plant (24), Number of Branching per Plant (7.667), Pod Length (11.667cm), Number of Pods per Plant (31), Number of Grains per Pod (13), Thousand Grain Weight (46.667g), Biological Weight (5.34kg ha⁻¹), Grain Yield (1.7967kg ha⁻¹), Harvest Index (33.64%). This experiment highlights the opportunity of using vermicompost as organic fertilizer which enhances the growth and yield of mung bean.