

Review Form 1.6

Journal Name:	International Journal of Plant & Soil Science
Manuscript Number:	Ms_IJPSS_89045
Title of the Manuscript:	Effect of Phosphorus and Boron levels on growth and yield of chickpea (Cicer arietinum L.)
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal’s peer review policy states that **NO** manuscript should be rejected only on the basis of ‘**lack of Novelty**’, provided the manuscript is scientifically robust and technically sound.
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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>-Results obtained that Plant height (53.11 cm), number of nodules (44.56), dry weight (30.36 g/plant), number of pods/plant (52.67), number of seeds/pod (1.80), seed yield (2109.93 kg/ha), straw yield (3428.07 kg/ha), Test weight (225.67 g),</p> <p>-Harvest index (38.10%), were significantly influenced with treatment combination of Phosphorus 60 kg/ha + Boron 3 kg/ha.</p> <p>-Maximum net return of 84,516.0 INR/ha and B:C ratio 2.01 was recorded in treatment combination of phosphorus 60 kg/ha + Boron 3 kg/ha.</p> <p>-Therefore, treatment combination of phosphorus 60 kg/ha + Boron 3 kg/ha was most productive and cost effective.</p>	
Minor REVISION comments	<p>-Chickpea crop meets 80% of its nitrogen (N) requirement from symbiotic nitrogen fixation and can fix up to 140 kg N ha from air. It leaves a substantial amount of residual nitrogen for subsequent crops and adds plenty of organic matter to maintain and improve soil health. Because of its deep tap root system, chickpea can withstand extended periods of drought by extracting water from deeper layers of the soil (Gaur <i>et al.</i>, 2010)</p> <p>-Sufficient supply of phosphorus to plant, hastens the maturity and increases the rate of nodulation and pod development. Phosphorus also imparts hardiness to shoot, improves the quality and regulates the photosynthesis and covers other physico-biochemical process. Most of the phosphorus present in the soil is unavailable to plants which are made available through the activities of efficient micro-organisms like bacteria, fungi and even cyanobacteria with production of organic acid and increasing phosphatase enzyme activity (Rajneesh Singh <i>et al.</i>, 2018)</p> <p>-Boron is a micronutrient plays an important role in increasing yield of pulse legumes. It is very important in cell division and in pod and seed formation. Boron ranks third place among micronutrients in its concentration in seed and stem as well as its total amount after zinc. Boron significantly affected the seed yield of chickpea. . Seed yield of chickpea increased with the application of boron @ 1.5- 2.5 kg ha. The application of boron resulted in a higher production of dry matter, due to an increase of the dry weight of pods including seeds. (Alam <i>et al.</i>, 2017)</p>	
Optional/General comments	<p>-The treatments consisted of viz. Phosphorus 20 kg/ha, 40 kg/ha, 60 kg/ha and Boron 1 kg/ha, 2 kg/ha, 3 kg/ha.</p> <p>-The experiment was laid out in Randomized Block Design, nine treatments replicated thrice</p> <p>-The observations were recorded on different growth parameters at harvest viz. plant height (cm), number of nodules per plant, plant dry weight, number of pods per plant, number of seeds per pod, test weight, seed yield and straw yield</p>	

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

Name:	Tran Van Minh
Department, University & Country	Vietnam National University Ho Chi Minh City, Vietnam