



SDI Review Form 1.6

Journal Name:	American Journal of Experimental Agriculture
Manuscript Number:	2013_AJEA_6736
Title of the Manuscript:	EFFECTS OF PHOSPHORUS AND BRADYRHIZOBIUM JAPONICUM ON GROWTH AND CHLOROPHYLL CONTENT OF COWPEA (VIGNA UNGUICULATA (L) WALP).
Type of the Article	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	The authors of this manuscript have reported data concerning the influence of phosphorus and rhizobial bacteria infection on growth and chlorophyll content of cowpea. The results are well described and presented but some issues should be explained: 1. The tested parameters of plants were height, number of leaves and chlorophyll content. But infection of leguminous plants by symbiotic rhizobia significantly affects the N content as the effect of nitrogen fixation process occurring. Therefore, the authors could additionally determine the fresh or dry weight of shoots and roots of the plants and the number of nodules formed in various tested conditions (or discussed this problem in Discussion section). 2. Detailed information about used rhizobial strain and its symbiotic properties should be added into methods section. Also, the explanation if suspension of this strain in water, buffer or in rich medium was used for plant inoculation, because it is well known that addition of external N source significantly decreases effectiveness of symbiosis. The authors have reported that the impact of rhizobial inoculation on all the tested plant parameters was significant, that is in accordance with literature data provided by other researchers. But very little is discussed in the context of data from other symbiotic interactions. For example, in symbiosis of <i>Rhizobium leguminosarum</i> bv. <i>trifolii</i> with clover the concentration of phosphorus	1. We agree with the reviewer that infection of leguminous plants by symbiotic rhizobia significantly affects the N content as the effect of nitrogen fixation process occurring. Data on fresh or dry weight of shoots and roots of the plants and the number of nodules formed were collected and reported elsewhere. However, we have included the reviewers' recommendations in the discussion section (Line 308-311) 2. We agree with the reviewer, and explanation have been added. Check line 77-87.



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	significantly affects the number of induced nodules, their colonization and fresh shoot weight of plants (Janczarek M, Skorupska A, International J Mol Sci. 2011;12(6):4132-55). Sometimes, very high P concentration has negative effect on the symbiotic parameters like nodule formation and colonization and nitrogen fixation effectiveness. Therefore, I strongly recommend that the data concerning bacterial aspects in enhancement of plant growth in the presence of different concentrations of phosphorous (examples from other symbiotic models such as e.g. <i>Rhizobium leguminosarum</i> bv. <i>trifolii</i> with clover, <i>Medicago sativa</i>-<i>Sinorhizobium meliloti</i> etc.) with appropriate citations should be added into Discussion section.	3. Agreed and worked out. Check additions in line 350-356, and references added in line 536-541
<u>Minor</u> REVISION comments	1. In general, the manuscript is well written, but large number of letter and space errors are present in the whole text including References section, which should be corrected. 2. If the authors used <i>B. japonicum</i> strain in this study, they should use the word rhizobia or detailed name of the strain but not the word "<i>Rhizobium</i>" written in italics, because <i>Rhizobium</i> and <i>Bradyrhizobium</i> are two different rhizobial genera.	1. We agree with reviewer's comments on the presence of letters and space errors. Corrections done accordingly as shown in the PDF file and highlighted with yellow colour in the whole text. 2. Corrections made and the word <i>Rhizobium</i> replaced with <i>Bradyrhizobium japonicum</i> in the whole manuscript
<u>Optional/General</u> comments		