



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_39729
Title of the Manuscript:	Growth Promotion by Azospirillum brasilense in the Germination of Rice, Oat, Brachiaria and Quinoa
Type of Article:	Original Research Article

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
1. Authors only partially responded to my previous comments. Still methodology is unclear. How big were the trays, how much sand? What was the moisture content of sand? Were there any nutrients? Foliar application of the inoculant was done 7 days emergence, so how could it affect germination (Table 1)? The producer of the inoculant advises 100 ml of it per ha, but in practice this volume is diluted at least with 100 L of water! What was the concentration of the inoculant used in this study? 2. The results presented in this work are premature to publish. As I mentioned in my previous review experiments should be repeated and the quality of the inoculant should be checked at the beginning. Also, roots colonization by the bacterium should be proved. 3. Conclusions are incorrect. For example "The bacterial inoculation in oat and brachiaria seeds promoted the accumulation of fresh weight." The seed applied inoculant reduced roots fresh biomass and slightly improved dry weight of roots (tab.2). Or, Finally, the use of inoculant is beneficial and should be used in association with nitrogen fertilization". – this conclusion has no justification, particularly based on the obtained results! 4. English needs a lot of corrections. For example, "Table 1 shows the results obtained for percentage of germination, average number of leaves, shoot height and root length in relation to the evaluated cultures and inoculation ways of <i>A. brasilense</i>, were it was observed that there was a significant difference between treatments for the interaction."	Dear reviewer, the methodology has been revised, but I will answer each of your doubts separately. 1. The sand trays had 5 liter, and they were totally filled with autoclaved sand at 120 ° C for 2h, according to the standard methodology, and wetted until the waterlogging at the beginning of the experiment, after which watering was performed according to the need of the crops to ensure their survival, approximately 2 times a day. The application of inoculant was carried out in 4 treatments: only via seed, only via foliar, via seed associated with foliar route and without inoculant, therefore, two treatments had seed inoculant at 7 days, which could have affected the germination, this is why the germination was evaluated in the "foliar" parameter, we did not know if the inoculant could interfere in the germination. The commercial inoculant is applied 100 ml per hectare, but it is not irrigated in the soil, it is carried out the calculation of the number of seeds needed for a hectare and these are treated before sowing with the inoculant, as is a magazine that publishes information on the agronomic area, we followed the principle that this procedure was clear. The use of inoculant spraying is still being studied by researchers in Brazil and is not widely disseminated to producers. The concentration of inoculant is initially determined for maize crop, weighing 100 maize seeds to have a base calculation, the amount in ml of inoculant for 100 maize seeds was converted to the seeds of the tested crops, based on their weight, by rule of 3 simple. 2. The premature results are due to the initial study, these crops, except for rice, have little investment in this line of research. We believe that this work can stimulate new research in the area, so the initial studies become more complex. The colonization of the <i>A. brasilense</i> bacterium is a treatment, the seeds were inoculated with the plant growth promoting bacterium and grown in a sterile environment for a period X, like any experiment, it cannot be guaranteed 100% that the result obtained is the result of the treatment used, but since the whole assembly was based on the scientific principle, we assumed that bacterial inoculation was efficient. There was no bacterial count, but we have morphological photos of the roots, and they have the morphological characteristics that indicate the presence of the bacterial colony, especially the presence of a larger number of root hair. The pictures will go as an attachment. 3. The conclusions were reviewed. The proof of bacterial inoculation can only be 100% proven with isolation followed by genetic sequencing, an expensive and laborious method that not everyone has access to, I hope you understand the lack of this data. 4. The English was reviewed. Best regards, the authors.