



SDI Review Form 1.6

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_39963
Title of the Manuscript:	Potentially diazotrophic endophytic bacteria associated to sugarcane are effective in plant growth-promotion
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. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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 manuscript needs language revision. I have given some sticky notes too, in the manuscript pdf attached. The medium used for isolation was a specific medium for <i>Glucanacetobacter</i> sp. which requires high acidic pH for growth and survival. Could have used a wide range of media for exploration of all the endophytes. Always roots harbour more microbes endophytically than stem region. Of course the author has indicated that in the discussion, but the author has also mentioned they did get lots of isolates from roots, why was it not mentioned in the results too. Were the isolates compared with standard cultures existing in the region? It is needed to compare the ability of the new isolates with existing standards used commercially for sugarcane cultivation like for eg. <i>G. diazotrophicus</i> PAL 5 or any other Std. <i>Burkholderia</i> strain. How did they select the 2 isolates (<i>Burkholderia gladioli</i> and <i>Burkholderia heleaia</i>) for environmental adversity studies, it should be explained in the results by giving a polite line indicating that 'based on the positive and maximum results obtained....'. Last of all in conclusion it would have been better if the sugarcane variety which harboured the maximum efficient endophyte was mentioned along with the endophyte being mentioned. Could have taken photograph of the selected isolates as pure colony streaks in Petri dish or could have even given the characterization pictures. The author has written a good discussion.	We reviewed the language. We chose a specific medium for diazotrophic bacteria because we wanted to select specific endophytes with high performance in the biological fixation of N in sugarcane. We added this to the text. We insert in the results section the data obtained with the roots isolates. The <i>Burkholderia heleaia</i> was a bacterium identified in root isolates. The Brazilian Company for Agricultural Research (EMBRAPA) in Brazil developed a sugarcane inoculant with a mixture of five bacteria: <i>Herbaspirillum seropedicae</i>, <i>Herbaspirillum rubrisubalbicans</i>, <i>Gluconacetobacter diazotrophicus</i>, <i>Burkholderia tropica</i> and <i>Azospirillum amazonense</i>. The commercial use of this inoculant is suspended by the Government for sanitary investigation of the bacterium <i>Azospirillum amazonense</i>. A recent thesis study (Lima, 2016) tested the inoculation of <i>Burkholderia</i> sp. in sugarcane in the field and obtained good results in plant growth-promoting. We chose to evaluate environmental adversities such as salinity and pH in only two isolates because we did molecular identification of these isolates. We added this to the text. We also add when we present the results of <i>Burkholderia</i> the suggestion "based on the positive and maximum results obtained" We added in the conclusions section the performance of <i>Burkholderia</i> in relation to environmental adversities and indicate which were the best isolates and in what variety were obtained. We added a figure showing the image of AIA production highlighting the isolates that performed better. We also added an image in the Figure that shows the statistics of phosphate solubilization.
Minor REVISION comments	NIL	
Optional/General comments	Refer to the article if possible, STUDIES ON ENDOPHYTIC <i>Burkholderia</i> sp. FROM SUGARCANE AND ITS SCREENING FOR PLANT GROWTH PROMOTING POTENTIAL DOI: http://dx.doi.org/10.18006/2017.5(2).242.257	This is a good study.