

General Comments

The manuscript has improved substantially after major revision. The authors have strengthened the scientific background and provided additional methodological detail. However, several issues remain, including incomplete methodological clarification, some overstated claims regarding significance and novelty, and conclusions that extend beyond the evidence presented. Further revision is therefore recommended, particularly to improve methodological precision, the consistency between results and conclusions, and the overall rigor of the language.

Specific Comments

Several statements in the Abstract remain too strong and should be revised more cautiously. The Abstract should also be fully consistent with the results presented in the main text.

Line 14: The authors claim that this study is the “first report”, but related studies have already been published by the authors in this region (Arakrak et al., 2018; Achkouk et al., 2020). Therefore, I suggest that the authors avoid such overly absolute wording and replace it with a more cautious and accurate statement.

Line 15: The strain numbering is still inconsistent between the Abstract and the main text. Please check Sections 3.2 and 3.3 carefully and ensure consistency throughout the manuscript.

Some methodological details remain unclear or inconsistent with the Results section and should be further clarified.

Line 70: Please provide the source of the temperature and precipitation data, such as the relevant institution, database, or meteorological station.

Lines 81-82: Please revise the term “Total Available phosphorus” in the main text and make it consistent with the wording used in the response letter.

Lines 213-216: The Methods indicate that growth was tested only at pH 3, 5, 6, 6.5, 7.5, 8.5, 9, and 10, whereas Table 5 reports tolerance of P79 at pH 11. Please resolve this inconsistency.

Line 225: The use of “and/or” is too ambiguous for a Methods section and should be replaced by a precise description. The composition of the mineral solution should also be clearly

specified.

Some terminology in the Results remains inaccurate, and several statements are not fully consistent with the tables or their statistical support.

Lines 250-255: The strain labels remain inconsistent. In addition, “bacillus-shaped colonies” and “cocci-shaped colonies” are not appropriate terms for colony morphology and should be revised using standard microbiological terminology.

Lines 274-275: Please clarify whether the phrase “significant variation” is supported by an explicit statistical analysis. If not, the wording should be made more cautious.

Line 284: The text states that “All strains produced IAA and ACC deaminase, though only at low levels”, whereas Table 3 reports IAA as “+++”. Please reconcile the text with the table.

Lines 312-313: The Results state that P79 tolerated pH 11, but the Methods indicate that growth was tested only up to pH 10. Please check the consistency of the Methods, Results, and Table 5.

Some statements in the Discussion remain too strong or are still largely speculative. Expressions such as “synergistic effect”, “metabolic versatility”, “nutrient cycling”, and “root colonization efficiency” should be used more cautiously unless they are directly supported by the present data. Where direct evidence is lacking, the text should be revised to reflect a more tentative interpretation.

The manuscript would also benefit from further language editing to improve grammar, terminology consistency, logical flow, and overall academic precision.

Technical Corrections

1. Figure 3 shows a plate antagonism assay, but the caption states “n = 3 pots”. Please correct this.

2. Please make the sample size description in Figures 4 and 5 fully consistent. If these are pot experiments, “n = 3 pots” is likely more appropriate and should be used consistently throughout

Reference

Achkouk, I., Aarab, S., Laglaoui, A., Bakkali, M., and Arakrak, A.: Isolation and Screening of Inorganic Phosphate Solubilizing *Pseudomonas* Strains from the *Lotus creticus* Rhizosphere Soil from the Northwest of Morocco, in: *Phyto-Microbiome in Stress Regulation*, edited by: Kumar, M., Kumar, V., and Prasad, R., Springer Singapore, Singapore, 99-111, 10.1007/978-981-15-2576-6_6, 2020.

Arakrak, A., Achkouk, I., Aarab, S., Laglaoui, A., and Bakkali, M.: Screening for *Lotus creticus* growth promoting rhizobacteria under greenhouse conditions, *Eurasian Journal of Soil Science*, 7, 284-291, 10.18393/ejss.436181, 2018.