

Peer Review

Review of: "Isolation of a Novel Plant Growth-Promoting *Dyella* sp. from Danish Natural Soil"

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My first comment is: why authors report only one strain? hundreds of rhizobacterial species may have been isolated from the soil sample, and PGP activities evaluated *in vitro* before inoculated in plants, e.g. Rennie agar for N-fixing bacteria, the work of Dr. Bashan et al. may be useful for P solubilizing bacteria [1], siderophore production, pathogen inhibition, etc. I am sure that N-fixer and P-solubilizer bacteria could be found, such tests may not be as sophisticated or modern as the ones reported by the authors in this work, but are useful.

Second: About the bacterial strain reported in this text, it belongs to the genus *Dyella*. After doing some research, there are several reports about being an opportunistic pathogen for humans, colonizing the airways mainly [2][3]. Another work reports it as an endophyte in orchids [4]. What I mean is that many bacteria with PGP activities belong to those genus known for being pathogenic to plants, animals and humans (*Pseudomonas*, *Arthrobacter*... even some *E. coli* strains can solubilize phosphate). Strains that belong to genus related to pathogenicity are not good candidates for PGP in food crops. Perhaps some tests for virulence may be useful to justify the usefulness, when genome is sequenced or certain genes are identified, an annotation in virulence factors of bacteria database (VFDB) may be performed.

References

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4. ^ΔTomoki Nishioka, Kana Morinaga, Hideyuki Tamaki. (2023). Complete Genome Sequence of *Dyella* sp. Strain GSA-30, a Predominant Endophytic Bacterium of *Dendrobium* Plants. *Microbiol Resour Anounc*, vol. 12 (4). doi:10.1128/mra.01338-22.

Declarations

Potential competing interests: No potential competing interests to declare.