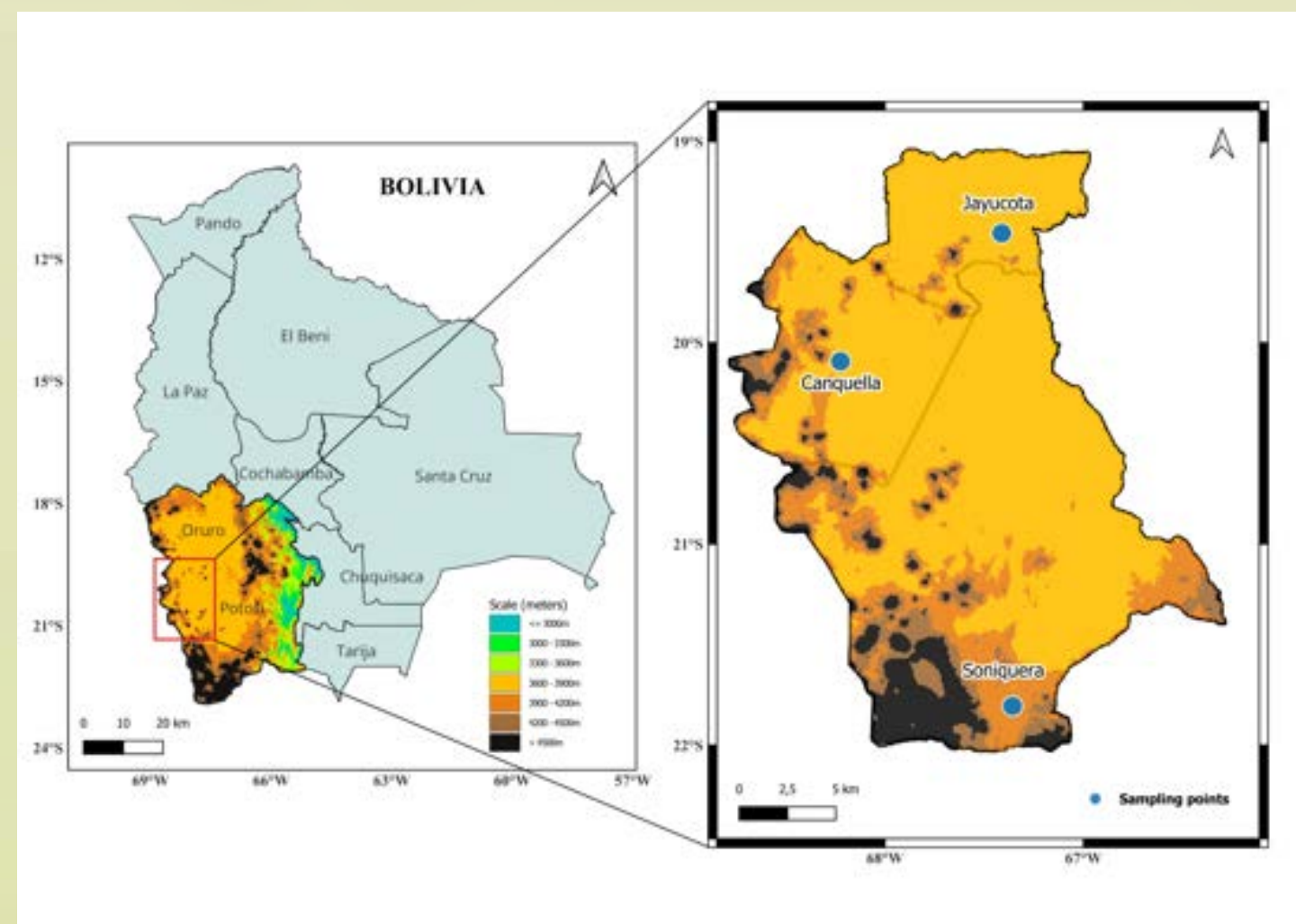


Rhizosphere bacteria from the Bolivian highlands improve drought tolerance in quinoa (*Chenopodium quinoa* Willd.)

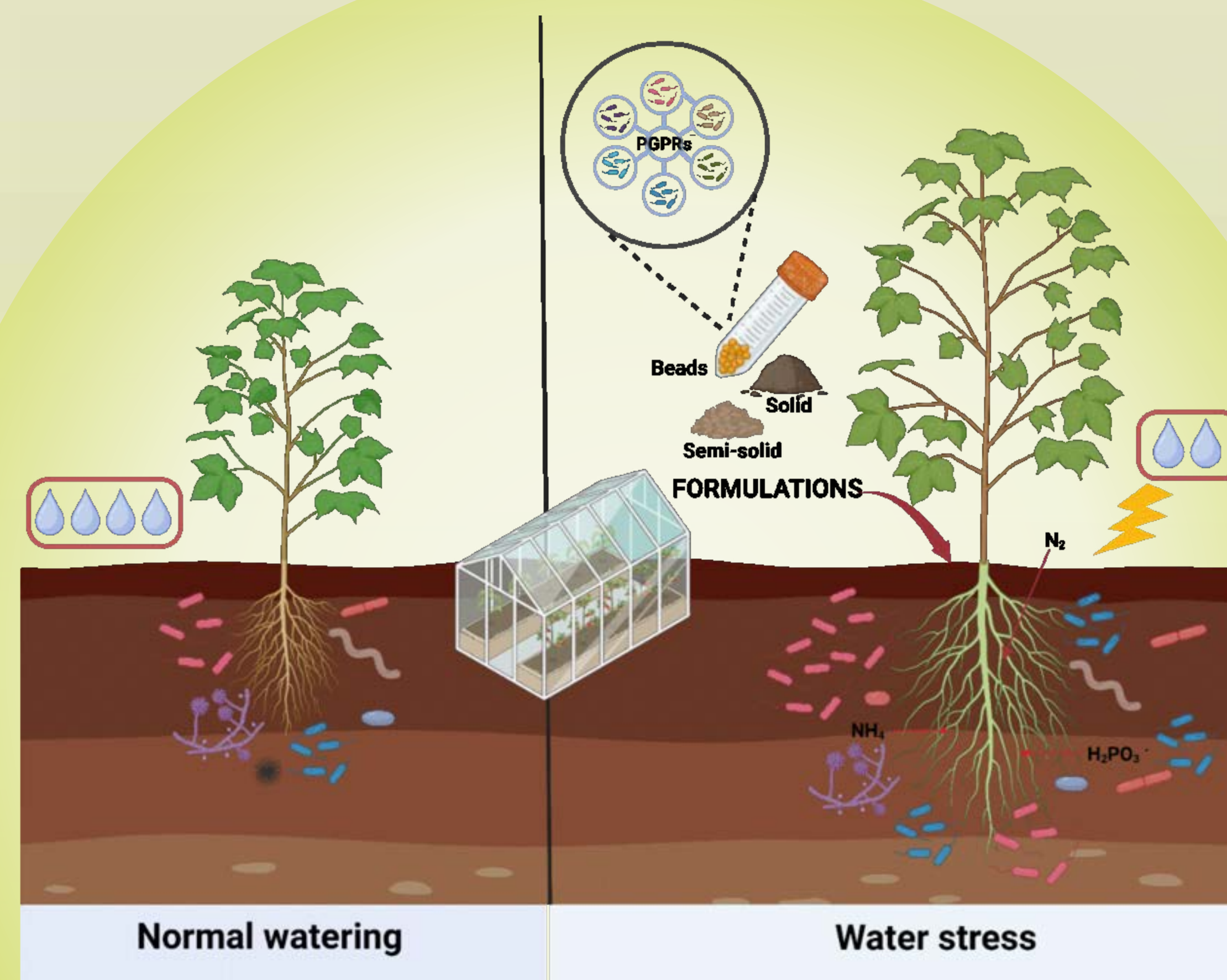
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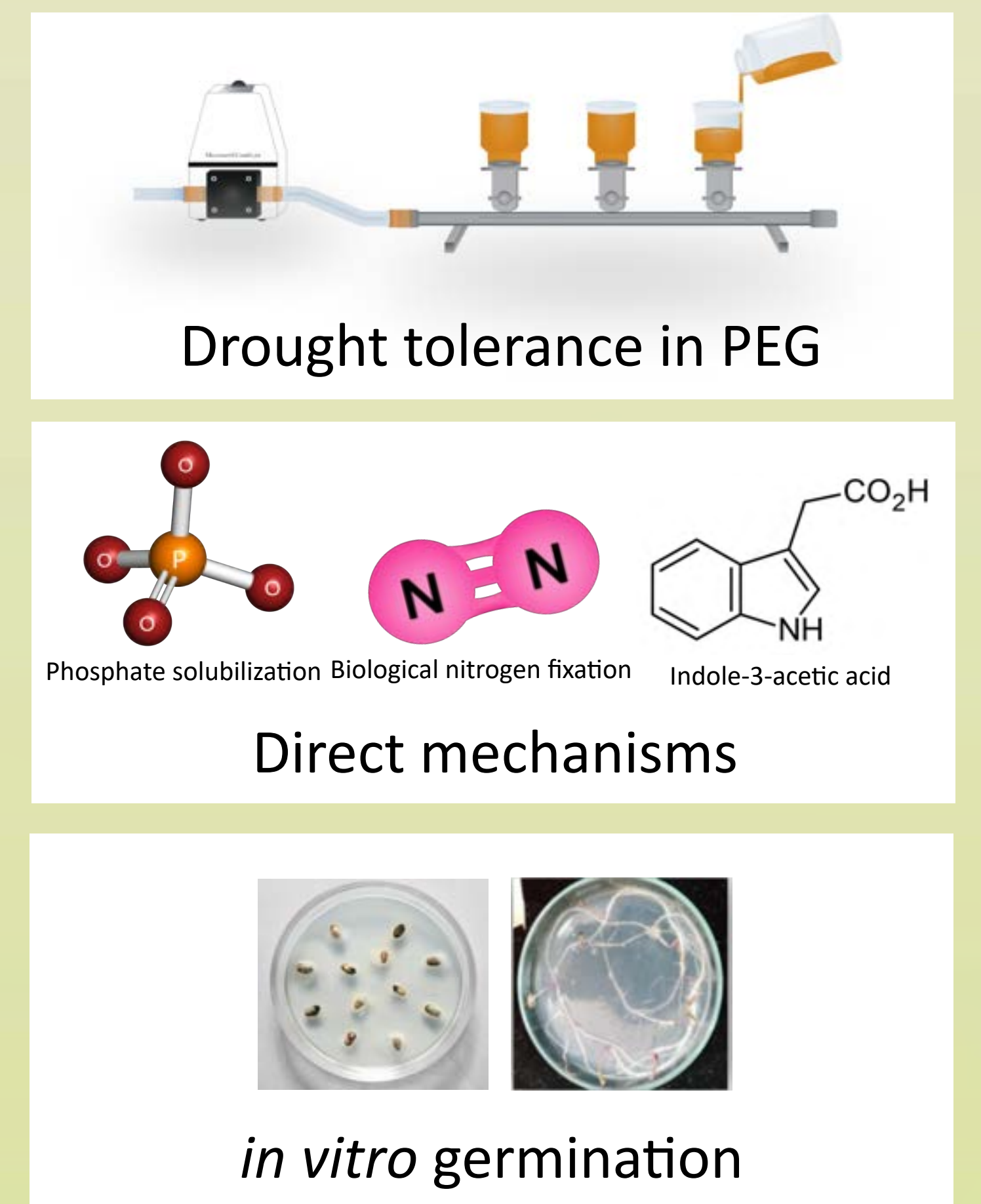
1. Background



Quinoa plants growing in arid conditions of the Southern Altiplano recruit soil bacteria to mitigate drought stress.

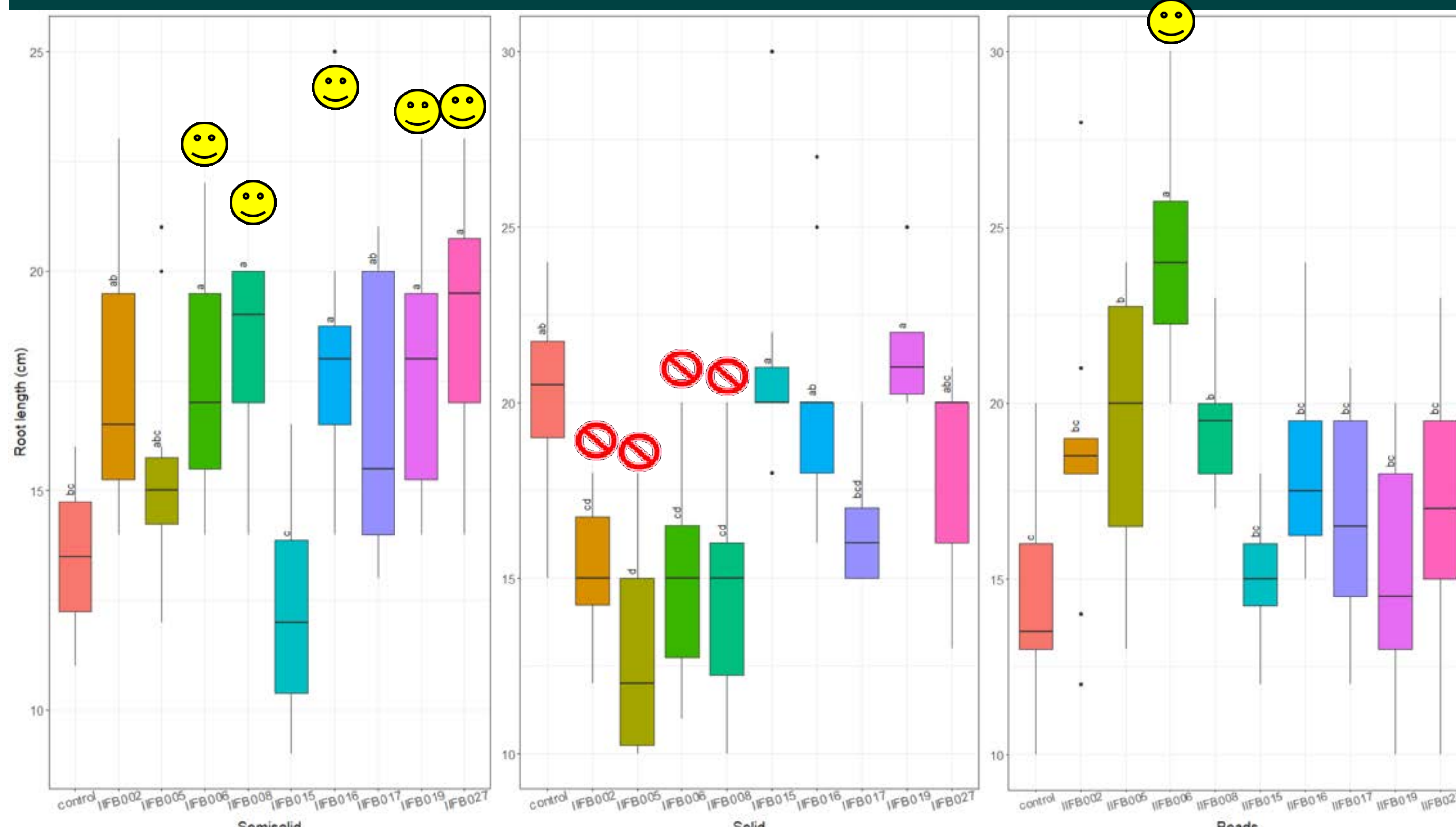


2. Methods

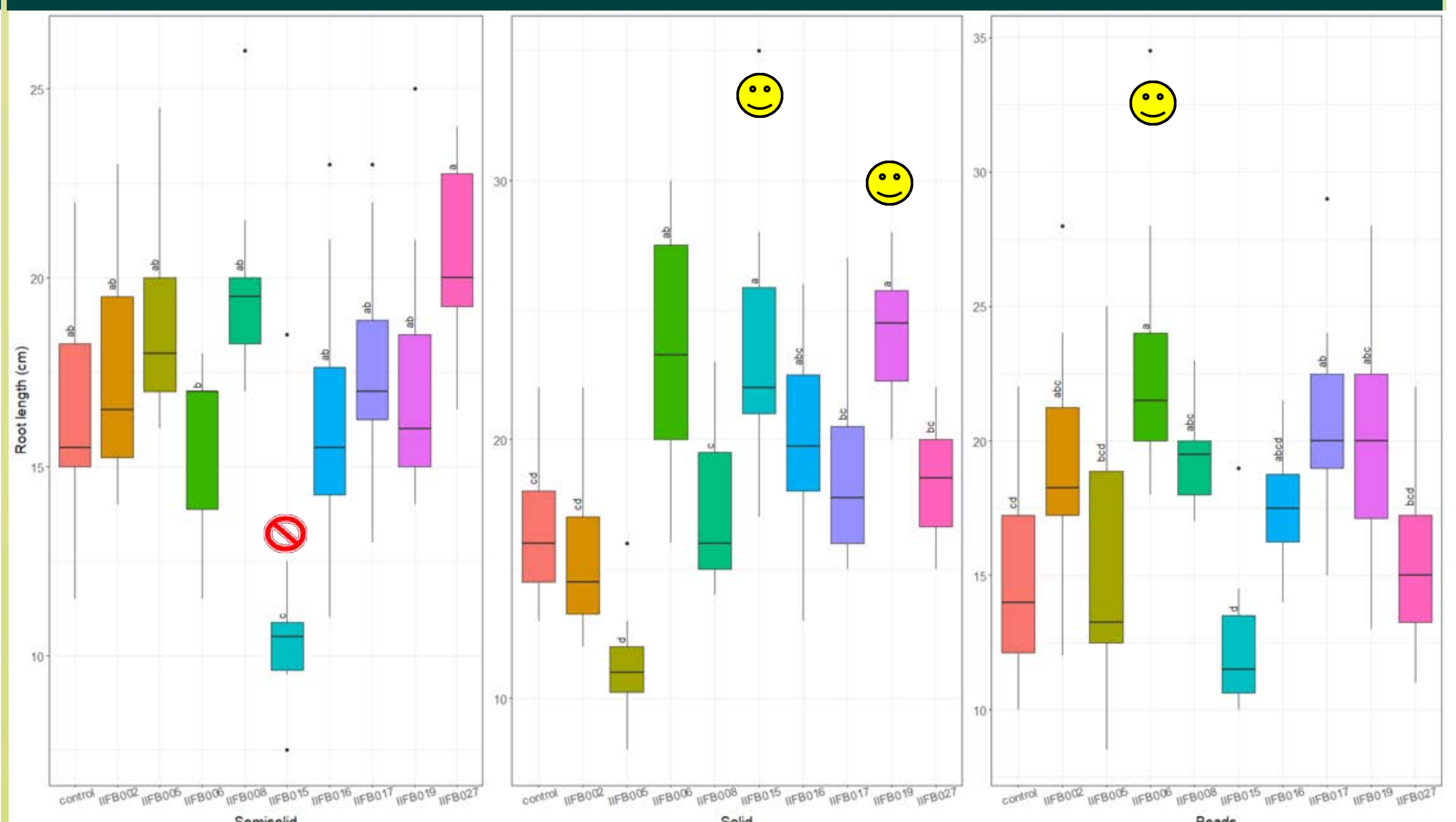


3. Results

WELL WATER (100 %WFC)



WATER DEFICIENCY (50% WFC)



Root length of quinoa plants applied with bacterial bio-inputs in water deficit and well water treatment.



Bacterial strain IIFB006 promotes quinoa growth under field conditions

4. Conclusions

1. The bacterial population from the communities of Jayucota and Soniquera shown to be highly tolerant to PEG-induced water stress (300 g/L).
2. Bacterial isolates shown growth promotion mechanisms and growth promotion capacity of quinoa under *in vitro* evaluations.
3. Plant growth-promoting bacterial strains induced drought tolerance at early growth stages.

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