Fanai et al. tried to show PGPBs induced adaptation to stresses. I have the following before publication.

- 1. The title is not appropriate, when the author mentioned plant growth promoting bacteria then what does PGPB mean? There is duplication.
- 2. The references style is not uniform throughout the article.
- 3. There are some incomplete sentences, please go through the entire article and correct them.
- 4. Replace the Raaijmakers et al 2009 with "Beneficial Microorganisms Improve Agricultural Sustainability under Climatic Extremes".
- 5. L 86-88: The citation is not in a correct place.
- 6. L 88-91: Please cite the following sentence with "Regulatory mechanisms of plant growth-promoting rhizobacteria and plant nutrition against abiotic stresses in Brassicaceae family".
- 7. L 148: revise the sentence.
- 8. There is lower- and upper-case letters where not needed. Please address through the article.
 - L 233-234: This information is unnecessary at this point. There should be some examples of heavy/essential metals, which are improved by these kinds of strains. i.e. Yield, zinc efficiencies and biofortification of wheat with zinc sulfate application in soil and foliar nanozinc fertilization; Integrated use of plant growth-promoting bacteria and nano-zinc foliar spray is a sustainable approach for wheat biofortification, yield, and zinc use efficiency; Nano-zinc and plant growth-promoting bacteria is a sustainable alternative for improving productivity and agronomic biofortification of common bean. I found these article the best example fit to your review as the highest zinc doses affect plant growth and yield negatively.
- 9. The article is extended but he figures and tables are not so much supportive. I will suggest adding another figure regarding the mechanisms.
- 10. Phosphate Solubilization section has some old references, I would suggest having a look of the most relevant and recent citations as follow: Inoculation with plant growth-promoting bacteria to reduce phosphate fertilization requirement and enhance technological quality and yield of sugarcane; Technological Quality of Sugarcane Inoculated with Plant-Growth-Promoting Bacteria and Residual Effect of Phosphorus Rates.
- 11. L: 513-19: Delete this information.
- 12. Nitrogen has not discussed in detail however, it's one of the most and extensively studied section with PGPB. Lots of recent literature is available on this important interaction such as, Impact of nitrogen fertilizer sustainability on corn crop yield: the role of beneficial microbial inoculation interactions; Inoculation with Plant Growth-Promoting Bacteria and Nitrogen Doses Improves Wheat Productivity and Nitrogen Use Efficiency; Co-Inoculation with Azospirillum brasilense and Bradyrhizobium sp. Enhances Nitrogen Uptake and Yield in Field-Grown Cowpea and Did Not Change N ...; Improving Sustainable Field-Grown Wheat Production With Azospirillum brasilense Under Tropical Conditions: A Potential Tool for Improving Nitrogen

- Management. All these articles will help you to discuss the role of PGPBs in reduction of N fertilization for safe environment.
- 13. L 550: Please insert the proper year of citation.
- 14. Zinc has discussed for around one paragraph, which shouldn't be the focus of the study instead discuss role of PGPB in Zn solubilization or interaction of zinc and PGPBs. Also, the citations provided in the study are not so much updated. Look into the following recent published review and articles: Interaction of Zinc Mineral Nutrition and Plant Growth-Promoting Bacteria in Tropical Agricultural Systems: A Review; Nanozinc and plant growth-promoting bacteria improve biochemical and metabolic attributes of maize in tropical Cerrado; Integrated use of plant growth-promoting bacteria and nano-zinc foliar spray is a sustainable approach for wheat biofortification, yield, and zinc use efficiency; Diazotrophic bacteria is an alternative strategy for increasing grain biofortification, yield and zinc use efficiency of maize etc..
- 15. I think bioformulation and onward should be the repetition of the above literature.

 Delete it.
- 16. Conclusions should be more comprehensive with a proper future direction. The further study that you indicated here has already done and available in the literature. Come up with some new ideas to pitch your review.