Interactive comment on “Acute glyphosate exposure does not condition the response of microbial communities to a dry–rewetting disturbance in a soil with long history of glyphosate–based herbicides” by Marco Allegrini et al.

Anonymous Referee #2

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The response of microbial communities to different perturbations is of great interest for designing sustainable farming practices (either tactic or strategic). Particularly the long-term effect of GBHs is relevant in no-till agricultural systems, and the dry-wetting effects are important in rainfed agriculture. This research explores in a microcosm experiment the effect of GBHs and dry-rewetting perturbations on soil microbial communities, but the interaction effect was not clear. Despite sound methods were used in the present work, deeper studies are needed and can be addressed with new research techniques like microbiome sequencing and also by repeated cycles of dry-rewetting to address more clearly the ecological impact (e.g., resilience, resistance to disturbance). The manuscript is appropriate for publishing in SOIL. Some minor corrections are needed:


2- As Reviewer #1 suggests, the concept of PICT response and the absence of interaction could be explained with more detail.

3- Line 58: how many years is “long term”? Despite described in Allegrini et al 2015, please indicate in the text.

4- Line 48: change quantitae by quantity