Impact of nitrogen fertilization on the soil microbiome and nitrous oxide emissions

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Propositions

Propositions associated with the PhD thesis
"Impact of nitrogen fertilization on the soil microbiome and nitrous oxide emissions"
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1. The diversity of the nitrifying microbial community in Brazilian Oxisol under sugarcane is low due to the low amount of ammonia that is normally present. (this thesis)
2. Linking the "black box" of microbial community functions to micro- and macronutrients will help to improve understanding of the soil system. (this thesis)
3. Application of -omics to bioethanol production can improve the efficiency of the process by identifying the potential effects of the contaminants. (this thesis)
4. To place unknown microbes into context, data obtained from non-reference guided analysis depends on the quality of reference data. (this thesis)
5. Not only is science needed to tackle climate change, but also awareness of human lifestyles on the earth at individual, societal and national levels.
6. Technology can greatly aid scientific progress but will never supplant the human role, which is to ask questions.
7. Progress in any one scientific field engenders progress in unrelated scientific fields.
8. Data-driven science should take as example the soil ecosystem with regard to recycling resources.
9. Ideals of the international scientific community – transparency, collaboration and rigorous standards – should be upheld regardless of national scientific policies.
10. When writing computer code, ten minutes of thought can be more useful than a day of trial and error. Also, better than a week of trial and error.