

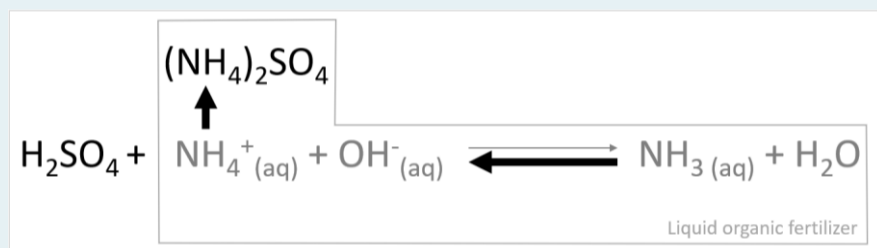
# Greenhouse gas emissions from acidified and stripped organic fertilizers

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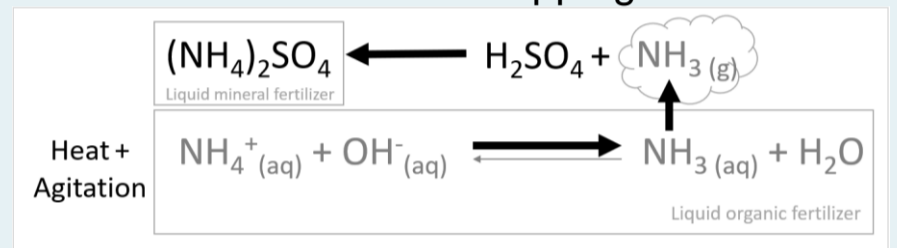
**The problem:** The nitrogen fertilization value of liquid organic fertilizers, such as cattle slurry or digested slurry, is often impaired by ammonia volatilization immediately after field application.

**Two possible solutions:**

**In-field acidification**



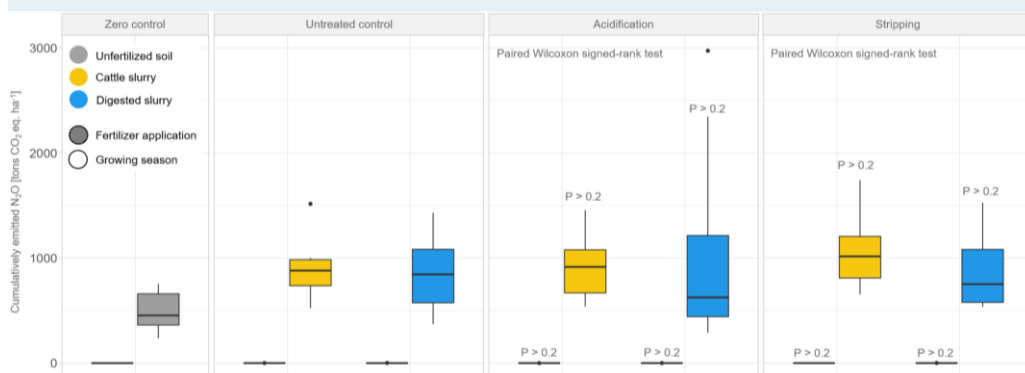
**Ammonium stripping**



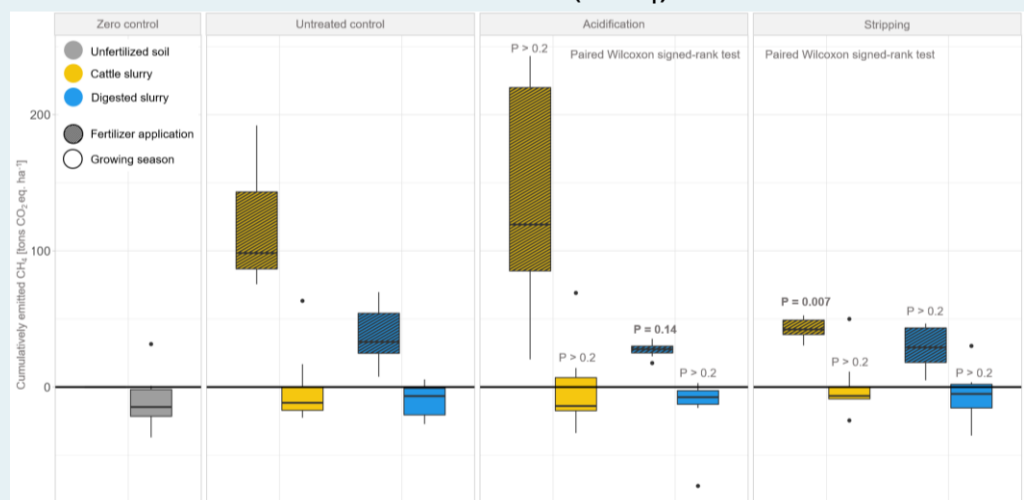
**Our question:** What is the effect of those treatments on greenhouse gas emissions after field application?

**Results:**

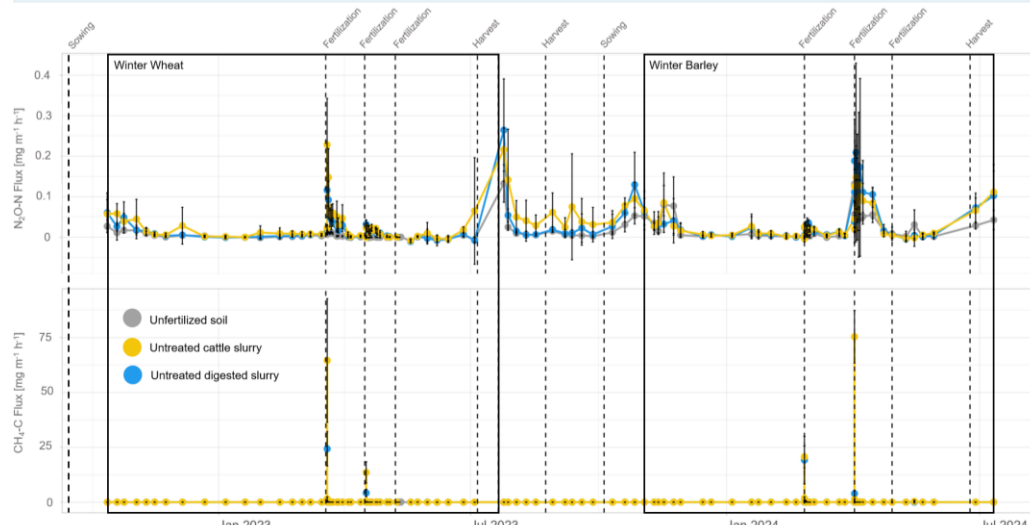
**Nitrous oxide (N<sub>2</sub>O)**



**Methane (CH<sub>4</sub>)**



**Methods:** Emissions were extrapolated from fluxes measured with non-steady-state chambers over two growing seasons (winter wheat, winter barley) in a replicated (n = 4) field trial (Wallbach, CH).



**Take-home**

- In-field acidification did not significantly affect nitrous oxide or methane emissions.
- Ammonium stripping did not affect nitrous oxide emissions, but reduced methane emissions at field application of cattle slurry.
- Together, nitrous oxide and methane emissions from liquid organic fertilizers undergoing in-field acidification or ammonium stripping were not higher than from untreated controls (data not shown).