**Preliminary Ammonia Emission Factors for Poultry Manure Storage from the DATAMAN database**

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**Abstract.** Poultry production is an important source of ammonia (NH3) emissions, which is an airborne pollutant and an indirect source of nitrous oxide (N2O), a greenhouse gas (GHG). The international project DATAMAN (https://www.dataman.co.nz/) developed a global database on GHG and NH3 emissions from the manure management chain. In the MELS project (https://www.mels-project.eu/), data are being analysed to develop revised EF values and generate functional relationships between emissions and activity/ancillary variables. The project also aims to estimate the effect of mitigation measures applied to the manure management chain.

In this study, an analysis of the DATAMAN database NH3 emission factors generated from the storage poultry manure has been conducted.

To enable a more reliable analysis, only studies published after January 2000 were included. In addition, studies were limited to those based on dynamic measurement techniques, with the majority (94%) conducted using dynamic chambers and the remaining studies adopting micrometeorological methods. Following screening of the data, 33 observations sourced from five countries (Sweden, United Kingdom, China, Japan, USA) were found as being suitable for statistical analysis. Two subcategories of poultry were identified in the analysed data: layers and broiler, with emission factors being significantly greater (p<0.05) for layer manure (23% of stored N) compared to broiler litter (11% of stored N). Despite this difference in the farming management of these animals, no significant differences were found between the dry matter content of broiler litter and layer manure. Furthermore, measurements carried out under field studies showed significantly lower NH3 emission factors than those conducted under laboratory conditions. These are preliminary results and further investigation and statistical analysis will be carried out. The outcomes of our investigation should help to improve our understanding of NH3 emissions and provide data for models, including an assessment of the impact of NH3 emissions. The DATAMAN database also contains observations on N2O and methane emissions from poultry production this will be the subject of further investigation.