

Ammonia

FAN: Flow of Agricultural Nitrogen

The Flow of Agricultural Nitrogen (FANv2) process model has been implemented as an extension to CESM2/CLM5. This version includes a more detailed treatment of both physical and agricultural processes, which allows the model to differentiate between the volatilization losses from animal housings, manure storage, grazed pastures, and the application of manure and different types of mineral fertilizers.

Described in Vira et al., GMD, 2020: <https://gmd.copernicus.org/articles/13/4459/2020/>

Fertilizer-induced NH₃ emission

Fung et al., Biogeosciences, in review, 2021: <https://bg.copernicus.org/preprints/bg-2021-63/>