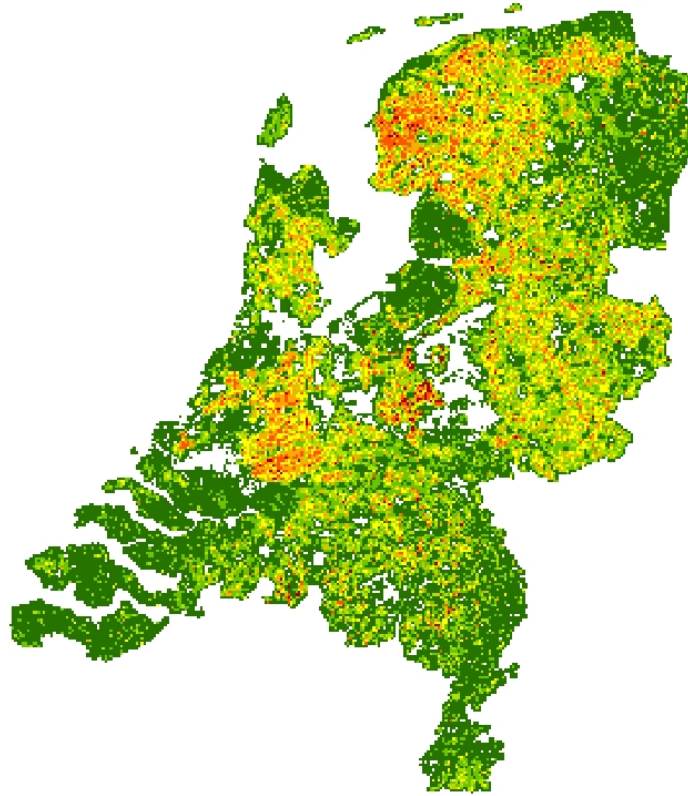


18) Name: allocation to site based on livestock numbers (PM₁₀ and NH₃ from animal housing systems)

The national emission totals for both NH₃ en PM₁₀ are based on the NEMA model. The spatial allocation is based on data from the GIAB database, administered by Alterra. This database contains the location of all farms in the Netherlands, coupled to a large number of data (e.g. housing systems, livestock numbers, cultivated area and crops grown). These data originate from the annual agricultural survey as carried out by the Ministry of Economic Affairs, and livestock data from the data files of the Animal Health Service. To calculate the emissions, emission factors per animal and type of animal housing system are used based on research performed by the Institute of Agricultural Economics (LEI). To account for uncertainties, the results are aggregated to 1x1 km gridcells.



Example map 18a: Distribution of dairy cattle in the Netherlands, based on GIAB data (red and orange dots indicate high numbers)



*Example map 18b: Distribution of total NH₃ emissions (1*1 km) from dairy cattle in the Netherlands, based on GIAB data (red and orange colors indicate high emissions)*

Institutes involved

Alterra
LEI

Currency of data

2014

Background documents

Bruggen, C. van, A. Bannink, C.M. Groenestein, B.J. de Haan, J.F.M. Huijsmans, H.H. Luesink, S.M. van der Sluis, G.L. Velthof & J.Vonk (2014)

Emissions into the atmosphere from agricultural activities in 2012. Calculations for ammonia, nitric oxide, nitrous oxide, methane and fine particulate matter using the NEMA model. Wageningen, The Statutory Research Task Unit for Nature and the Environment (WOT Natuur & Milieu). WOt technical report 3.