Nitrous oxide, ammonia and methane from Australian meat chicken houses measured under commercial operating conditions and with mitigation strategies applied

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Supplementary Material

Table S1 gives the model parameters and uncertainty used for chicks in and birds out for all four trials.

Table S1. Carcase Nitrogen (N) and Total Solids (TS) input parameter values for chicks in and birds out for all trials

Input parameters	Units	Value	Uncertainty[A]		Distribution type
N content of chicks in – DM basis	kg/kg	0.1002	±	0.0017	Normal
TS content of chicks in	kg/kg	0.2562	±	0.1590	Normal
N content of birds out – DM basis	kg/kg	0.0852	±	0.0151	Normal
TS content of birds out	kg/kg	0.3358	±	0.0351	Normal

[A] Uncertainty is given as 2 standard deviations from the mean

Table S2 gives the individual model parameters and uncertainties defined for feed, bedding, spent litter and N emissions for each of the four trials.

Table S2. Input parameters for paired poultry houses with two different litter depths (47mm (LD$_{47}$), 67mm (LD$_{67}$), trial 1) and two levels of dietary crude protein (19.8% (CP$_{19.8}$), 21.3% (CP$_{21.3}$), trial 2) with uncertainty values

		LD 47		LD 67		CP 21.3		CP 19.8		**Distribution type**
Input parameters	**Units**	**Value**	**Uncertainty**	**Value**	**Uncertainty**	**Value**	**Uncertainty**	**Value**	**Uncertainty**	
N[A] content of feed	kg/kg	0.0379 ±	0.0038	0.0377 ±	0.0038	0.0374 ±	0.0038	0.0400 ±	0.0040	Normal – uncertainty based on 2*S.D
TS[B] content of feed	kg/kg	0.8993 ±	0.0012	0.8991 ±	0.0012	0.9120 ±	0.0012	0.9056 ±	0.0012	Normal – uncertainty based on 2*S.D
N content of bedding	kg/kg	0.0047 ±	0.0012	0.0045 ±	0.0014	0.0023 ±	0.0012	0.0033 ±	0.0012	Normal – uncertainty based on 2*S.D
TS content of bedding	kg/kg	0.6367 ±	0.0694	0.6470 ±	0.0594	0.6737 ±	0.0050	0.6667 ±	0.0172	Normal – uncertainty based on 2*S.D
N content of spent litter	kg/kg	0.0382 ±	0.0036	0.0345 ±	0.0042	0.0402 ±	0.0041	0.0406 ±	0.0033	Normal – uncertainty based on 2*S.D
TS content of spent litter	kg/kg	0.651 ±	0.0249	0.6654 ±	0.0207	0.7266 ±	0.0104	0.7278 ±	0.0159	Normal – uncertainty based on 2*S.D
NH$_3$-N	kg	253 ±	193.8	242 ±	285	220 ±	197.5	236 ±	250	Normal
N$_2$O-N	kg	5.0 ±	5.4	11.0 ±	13.8	7.6 ±	5.3	7.4 ±	7.5	Normal

[A] Nitrogen

[B] Total solids