C1 N CHAIN CALCULATIONS SHEET C: N CHAINS BASED UPON DANISH VALUES AND WITH NORMAL IPCC N2O EMISSION VALUES | BASIC VALUES | By Jacob Bugge Version 310308, | Available at www.ppo.bugge.com See terms of use on Sheet A | C1

Note 33

| Crop, fodder/food | WRS | WWH | WWB | WBA | RYE | TRI | SBA | SWH | OAT | MCC | MCW | GRO | GCR | CGR | GHP | GRP | CGR0 | CONC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Crop # | 22 | 11 | 13 | 10 | 14 | 16 | 1 | 2 | 3 | 5 | 216 | 263 | 260 | 261 | 2520 | 252 | 2610 | 9999 | Note 1 |
| <NUE/e> | 0.64 | 0.64 | 0.54 | 0.60 | 0.59 | 0.53 | 0.60 | 0.58 | 0.73 | 0.62 | 1.05 | 0.83 | 1.33 | 11.68 | 0.44 | 0.81 | -2.75 | 1.00 | Note 16 |
| N digestibility, crop/crop part with N | 0.84 | 0.67 | 0.68 | 0.66 | 0.62 | 0.65 | 0.65 | 0.67 | 0.64 | 0.62 | 0.63 | 0.78 | 0.80 | 0.80 | 0.66 | 0.78 | 0.80 | 0.87 | Note 4 |
| <NUE/e> addition before cereal | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.04 | 0.11 | 29.21 | 0.00 | 0.00 | -0.81 | 0.00 | Note 34 |
| <NUE/e> addition from straw | 0.15 | 0.11 | 0.09 | 0.12 | 0.17 | 0.13 | 0.12 | 0.07 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Note 34 |
| Recalculated N norm, kg N/ha | 144 | 157 | 198 | 147 | 117 | 141 | 118 | 118 | 93 | 140 | 160 | 309 | 199 | 21 | 132 | 132 | -87 | | Note 14 |

| Crop, PPO/biodiesel/bioethanol | WRB | WWHB | WWBB | WBB | RYB | TRB | SBB | SWB | OAB | MCB | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Crop # | 229 | 119 | 139 | 109 | 149 | 169 | 19 | 29 | 39 | 59 | Note 1 |
| <NUE/e> | 0.64 | 0.64 | 0.54 | 0.60 | 0.59 | 0.53 | 0.60 | 0.58 | 0.73 | 0.62 | Note 16 |
| N digestibility, crop part with N | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.83 | Note 4 |
| <NUE/e> addition before cereal | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Note 34 |
| <NUE/e> addition from straw | 0.15 | 0.11 | 0.09 | 0.12 | 0.17 | 0.13 | 0.12 | 0.07 | 0.13 | 0.00 | Note 34 |
| Recalculated N norm, kg N/ha | 144 | 157 | 198 | 147 | 117 | 141 | 118 | 118 | 93 | 140 | Note 14 |
| | | | | | | | | | | | |
| <NUE/e> amounts from crop res | 0.03 | 0.11 | 0.09 | 0.08 | 0.15 | 0.12 | 0.09 | 0.12 | 0.11 | 0.21 | 0.04 | 0.04 | 0.13 | 1.28 | 0.15 | 0.15 | -0.30 | | Note 34 |
| <NUE/e> amounts from N fixation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.47 | 11.96 | 0.00 | 0.00 | -4.05 | | Note 34 |

| Manure/fertilizer kind, # | None 0 | N 1 | Cattle manure 2 | 2 | 2 | 2 | Pig manure 3 | 3 | 3 | 3 | Poultry manure 4 | 4 | 4 | 4 | Sheep manure 5 | 5 | Goat manure 6 | 6 | Green 71 | Green 72 | None 0 | None 0 | Note 35 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Manure handling | None | | Liquid | Separated | Deep litter | Grazing | Liquid | Separated | Deep litter | Rooting | Liquid | Separated | Deep litter | Scraping | Deep litter | Grazing | Deep litter | Grazing | high N | low N | None | None | Note 35 |
| # | 0 | 1 | 21 | 22 | 23 | 24 | 31 | 32 | 33 | 34 | 41 | 42 | 43 | 44 | 53 | 54 | 63 | 64 | 71 | 72 | 0 | 0 | Note 35 |
| Manure+straw, relative | 1.000 | 1.016 | 1.016 | 1.159 | 1.000 | 1.000 | 1.024 | 1.127 | 1.000 | 1.000 | 1.000 | 1.013 | 1.000 | 1.162 | 1.000 | 1.162 | 1.000 | 1.000 | 1.000 | | | | Note 36 |
| Vol/NH3 House | 0.000 | 0.000 | 0.080 | 0.050 | 0.060 | 0.000 | 0.140 | 0.180 | 0.250 | 0.000 | 0.100 | 0.250 | 0.400 | 0.000 | 0.150 | 0.000 | 0.150 | 0.000 | 0.000 | 0.000 | | | Note 37 |
| Vol/NH3 Store | 0.000 | 0.000 | 0.022 | 0.085 | 0.300 | 0.000 | 0.027 | 0.214 | 0.400 | 0.000 | 0.020 | 0.150 | 0.175 | 0.000 | 0.150 | 0.000 | 0.150 | 0.000 | 0.000 | 0.000 | | | Note 37 |
| % use of field store | | | | | 20 | | | | 70 | | | | 85 | | | | | | | | | | Note 38 |
| Vol/NH3 Field | 0.000 | 0.022 | 0.250 | 0.250 | 0.250 | 0.070 | 0.250 | 0.250 | 0.250 | 0.070 | 0.250 | 0.250 | 0.250 | 0.070 | 0.250 | 0.070 | 0.250 | 0.070 | 0.250 | 0.250 | | | Note 37 |
| N efficiency | 0.000 | 1.000 | 0.700 | 0.650 | 0.450 | 0.450 | 0.750 | 0.650 | 0.650 | 0.650 | 0.650 | 0.650 | 0.450 | 0.450 | 0.450 | 0.450 | 0.450 | 0.450 | 0.700 | 0.400 | | | Note 39 |
| N-Vol/NH3 efficiency | | 1.022 | 0.933 | 0.867 | 0.600 | 0.484 | 1.000 | 0.867 | 0.867 | 0.699 | 0.867 | 0.867 | 0.600 | 0.484 | 0.600 | 0.484 | 0.600 | 0.484 | 0.933 | 0.533 | | | Note 40 |

| Use | Kind | Waste moved | Waste in field | Cattle Dairy | Cattle Beef | Pig Pork | Poultry Meat | Poultry Eggs | Sheep Milk/mutton | Goat Milk/meat | N crop high N | N crop low N | Food/ beverage | Fuel/ other | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kind # | | -1 | 0 | 21 | 22 | 32 | 42 | 43 | 51 | 61 | 71 | 72 | 8 | 9 | Note 41 |
| Fodder to food | N eff | NON | | 0.264 | 0.227 | 0.418 | 0.510 | 0.241 | 0.142 | 0.096 | | | | | Note 41 |
| Fodder to food | N eff | ORG | | 0.264 | 0.146 | 0.269 | 0.328 | 0.272 | 0.142 | 0.096 | | | | | Note 41 |
| Fodder to food | ND eff | NON | | 0.351 | 0.310 | | | | | | | | | | Note 41 |
| Fodder to food | ND eff | ORG | | 0.351 | 0.199 | | | | | | | | | | Note 41 |

| Ratios of N2O-N to N according to | | IPCC 1996 (current inventories) | | | IPCC 2006 (newest values, not yet used for inventories) | | | |
|---|---|---|---|---|---|---|---|---|
| Fertilizer/manure | | N | Animal | Green | N | Animal | Green | Note 42 |
| Handling/ | Slurry and liquid manure | 0 | 0.0010 | 0 | 0 | 0.0050 | 0 | Note 42 |
| house/store | Solid manure and deep litter | 0 | 0.0200 | 0 | 0 | 0.0050 | 0 | Note 42 |
| Application/field | | 0.0125 | 0.0125 | 0.0125 | 0.0100 | 0.0100 | 0.0100 | Note 42 |
| Grazing cattle, rooting pigs, craping poultry | | 0 | 0.0200 | 0 | 0 | 0.0200 | 0 | Note 42 |
| Grazing, others | | 0 | 0.0200 | 0 | 0 | 0.0100 | 0 | Note 42 |
| Volatilisation/NH3 | | 0.0100 | 0.0100 | 0.0100 | 0.0100 | 0.0100 | 0.0100 | Note 42 |
| Crop residues | | 0 | 0.0000 | 0.0125 | 0 | 0.0000 | 0.0100 | Note 42 |
| N fixing crops | | 0 | 0.0000 | 0.0125 | 0 | 0.0000 | 0.0000 | Note 42 |
| Leaching | | 0.0250 | 0.0250 | 0.0250 | 0.0075 | 0.0075 | 0.0075 | Note 42 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND CATTLE DAIRY Note 43
AND CONTINUING WITH LIQUID CATTLE MANURE TO PRODUCE WINTER WHEAT FOR CATTLE DAIRY Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Amounts Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Fodder: Uses #21-61 Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | N2O-N emission IPCC 1996 Total | N2O-N emission IPCC 2006 Each | N2O-N emission IPCC 2006 Total | Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | N | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | 28.1 | 27.8 | | | | 2.27 | 3.70 | 2.17 | 2.78 | Note 45 |
| Year | N NH3 | | ACCORDING TO | IPCC 1996 | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | 26.3 | 26.0 | | | | 0.26 | | 0.26 | | Note 45 |
| 1-10 | N leach | | FIRST YEAR | 0.0310 | 0.0237 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | 46.7 | 46.2 | | | | 1.17 | | 0.35 | | Note 45 |
| | | | TOTAL | 0.0519 | 0.0390 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | 101.1 | 100.0 | | | | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.1318 | | 0.0991 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 21 | 71.3 | 21.0 | 0.0 | 0.0 | 0.0 | 21 | 50.2 | 1.49 | 2.21 | 1.43 | 1.69 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Cattle | 0.84 | | | | 0.0 | Cattle | 4.0 | 0.06 | 0.0125 | 0.06 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Dairy | 2 | | | | 17.5 | Liquid | 0.0 | 0.66 | 0.0010 | 0.20 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 47.0 | 45.9 | 0 | 100 | 11 | 0 | 0 | 34.5 | 21 | 20.7 | 4.9 | 0.0 | 0.0 | 0.0 | 21 | 15.8 | 0.54 | 1.02 | 0.51 | 0.75 | Note 47 |
| 2 | Vol/NH3 | Cattle | YES | 1.0 | 11.5 | NON | 100.00 | WWH | 1.000 | NO | 13.8 | Cattle | 0.67 | | | | 0.0 | Cattle | 1.3 | 0.14 | 0.0125 | 0.14 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 13.8 | Dairy | 2 | | | | 7.5 | Liquid | 0.0 | 0.34 | 0.0010 | 0.10 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 14.8 | 14.4 | 0 | 100 | 11 | 0 | 0 | 10.8 | 21 | 6.5 | 1.5 | 0.0 | 0.0 | 0.0 | 21 | 5.0 | 0.17 | 0.32 | 0.16 | 0.24 | Note 47 |
| 3 | Vol/NH3 | Cattle | YES | 0.3 | 3.6 | NON | 100.00 | WWH | 1.000 | NO | 4.3 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.4 | 0.04 | 0.0125 | 0.04 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 4.3 | Dairy | 2 | | | | 2.4 | Liquid | 0.0 | 0.11 | 0.0010 | 0.03 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 4.6 | 4.5 | 0 | 100 | 1 | 0 | 0 | 3.4 | 21 | 1.9 | 0.4 | 0.0 | 0.0 | 0.0 | 21 | 1.5 | 0.05 | 0.10 | 0.05 | 0.07 | Note 47 |
| 4 | Vol/NH3 | Cattle | YES | 0.1 | 1.1 | NON | 100.00 | SBA | 1.000 | NO | 1.5 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.1 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 1.5 | Dairy | 2 | | | | 0.7 | Liquid | 0.0 | 0.04 | 0.0010 | 0.01 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 1.4 | 1.3 | 0 | 100 | 10 | 0 | 0 | 1.0 | 21 | 0.6 | 0.1 | 0.0 | 0.0 | 0.0 | 21 | 0.4 | 0.02 | 0.03 | 0.01 | 0.02 | Note 47 |
| 5 | Vol/NH3 | Cattle | YES | 0.0 | 0.3 | NON | 100.00 | WBA | 1.000 | NO | 0.4 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.444 | 0.0 | 0.4 | Dairy | 2 | | | | 0.2 | Liquid | 0.0 | 0.01 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 0.4 | 0.4 | 0 | 100 | 22 | 1 | 0 | 0.3 | 21 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 21 | 0.1 | 0.00 | 0.01 | 0.00 | 0.01 | Note 47 |
| 6 | Vol/NH3 | Cattle | YES | 0.0 | 0.1 | NON | 100.00 | WRS | 1.113 | NO | 0.1 | Cattle | 0.84 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.113 | 0.335 | 0.0 | 0.1 | Dairy | 2 | | | | 0.1 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 0.1 | 0.1 | 0 | 100 | 11 | 0 | 0 | 0.1 | 21 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 21 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.444 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.27 | 0.08 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.17 | 1.52 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 3.70 | 2.78 Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 3.70 | 2.78 Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.27 | 0.08 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total including natural | 4.87 | 3.95 Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND CATTLE DAIRY Note 43
AND CONTINUING WITH SEPARATED CATTLE MANURE TO PRODUCE WINTER WHEAT FOR CATTLE DAIRY Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | 27.1 | 26.8 | 2.84 | 4.29 | 2.12 | 2.74 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | 26.9 | 26.6 | 0.27 | | 0.27 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0372 | 0.0236 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | 47.1 | 46.6 | 1.18 | | 0.35 | | Note 45 |
| | | | TOTAL | | 0.0602 | 0.0384 | TOTAL N AMOUNTS IN KG AND % | | | | | | | 101.1 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | 0.1584 | | 0.1011 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 21 | 71.3 | 21.0 | 0.0 | 0.0 | 0.0 | 22 | 50.2 | 1.94 | 2.65 | 1.43 | 1.68 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Cattle | 0.84 | | | | 0.0 | Cattle | 2.5 | 0.05 | 0.0125 | 0.05 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Dairy | 2 | | | | 17.5 | Sep | 0.0 | 0.66 | 0.0105 | 0.20 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 48.5 | 44.4 | 0 | 100 | 11 | 0 | 0 | 33.3 | 21 | 18.5 | 4.4 | 0.0 | 0.0 | 0.0 | 22 | 14.2 | 0.65 | 1.18 | 0.49 | 0.76 | Note 47 |
| 2 | Vol/NH3 | Cattle | YES | 4.1 | 11.1 | NON | 100.00 | WWH | 1.000 | NO | 14.7 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.7 | 0.16 | 0.0125 | 0.16 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 14.7 | Dairy | 2 | | | | 7.3 | Sep | 0.0 | 0.37 | 0.0105 | 0.11 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 13.7 | 12.5 | 0 | 100 | 11 | 0 | 0 | 9.4 | 21 | 5.2 | 1.2 | 0.0 | 0.0 | 0.0 | 22 | 4.0 | 0.18 | 0.33 | 0.14 | 0.21 | Note 47 |
| 3 | Vol/NH3 | Cattle | YES | 1.2 | 3.1 | NON | 100.00 | WWH | 1.000 | NO | 4.2 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.2 | 0.04 | 0.0125 | 0.04 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 4.2 | Dairy | 2 | | | | 2.1 | Sep | 0.0 | 0.10 | 0.0105 | 0.03 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 3.9 | 3.5 | 0 | 100 | 1 | 0 | 0 | 2.6 | 21 | 1.4 | 0.3 | 0.0 | 0.0 | 0.0 | 22 | 1.1 | 0.05 | 0.09 | 0.04 | 0.06 | Note 47 |
| 4 | Vol/NH3 | Cattle | YES | 0.3 | 0.9 | NON | 100.00 | SBA | 1.000 | NO | 1.3 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.1 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 1.3 | Dairy | 2 | | | | 0.5 | Sep | 0.0 | 0.03 | 0.0105 | 0.01 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 1.0 | 0.9 | 0 | 100 | 10 | 0 | 0 | 0.7 | 21 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 22 | 0.3 | 0.01 | 0.03 | 0.01 | 0.02 | Note 47 |
| 5 | Vol/NH3 | Cattle | YES | 0.1 | 0.2 | NON | 100.00 | WBA | 1.000 | NO | 0.3 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.3 | Dairy | 2 | | | | 0.1 | Sep | 0.0 | 0.01 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 0.3 | 0.2 | 0 | 100 | 22 | 1 | 0 | 0.2 | 21 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 22 | 0.1 | 0.00 | 0.01 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | Cattle | YES | 0.0 | 0.1 | NON | 100.00 | WRS | 1.113 | NO | 0.1 | Cattle | 0.84 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.113 | 0.382 | 0.0 | 0.1 | Dairy | 2 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 0.1 | 0.1 | 0 | 100 | 11 | 0 | 0 | 0.1 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.24 | 0.07 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.11 | 1.44 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 4.29 | 2.74 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 4.29 | 2.74 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.24 | 0.07 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 1.11 | Total including natural | 5.40 | 3.85 | Note 51 |

 N CHAIN CALCULATIONS SHEET C: N CHAINS BASED UPON DANISH VALUES CALCULATIONS By Jacob Bugge Available at www.ppo.bugge.com 

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND CATTLE DAIRY Note 43
AND CONTINUING WITH CATTLE DEEP LITTER TO PRODUCE WINTER WHEAT FOR CATTLE DAIRY Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | | 24.2 | 22.2 | 3.10 | 4.67 | 1.92 | 2.65 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | | 37.1 | 34.0 | 0.37 | | 0.37 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0435 | 0.0236 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | | 47.8 | 43.8 | 1.19 | | 0.36 | | Note 45 |
| | | | TOTAL | | 0.0655 | 0.0372 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | | | 109.0 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.1931 | | 0.1096 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 21 | 71.3 | 21.0 | 0.0 | 0.0 | 0.0 | 23 | 50.2 | 2.39 | 3.10 | 1.43 | 1.68 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Cattle | 0.84 | | | | 0.0 | Cattle | 3.0 | 0.05 | 0.0125 | 0.05 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Dairy | 2 | | | | 17.5 | Deep | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0050 | Note 49 |
| Year | N | 23 | 1 | 54.7 | 38.3 | 0 | 100 | 11 | 0 | 0 | 28.7 | 21 | 11.1 | 2.6 | 0.0 | 0.0 | 0.0 | 23 | 8.5 | 0.60 | 1.30 | 0.41 | 0.80 | Note 47 |
| 2 | Vol/NH3 | Cattle | YES | 16.4 | 9.6 | NON | 100.00 | WWH | 1.000 | NO | 17.7 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.5 | 0.27 | 0.0125 | 0.27 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 17.7 | Dairy | 2 | | | | 6.3 | Deep | 0.0 | 0.44 | 0.0200 | 0.13 | 0.0050 | Note 49 |
| Year | N | 23 | 1 | 9.2 | 6.5 | 0 | 100 | 11 | 0 | 0 | 4.8 | 21 | 1.9 | 0.4 | 0.0 | 0.0 | 0.0 | 23 | 1.4 | 0.10 | 0.22 | 0.07 | 0.14 | Note 47 |
| 3 | Vol/NH3 | Cattle | YES | 2.8 | 1.6 | NON | 100.00 | WWH | 1.000 | NO | 3.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.1 | 0.04 | 0.0125 | 0.04 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 3.0 | Dairy | 2 | | | | 1.1 | Deep | 0.0 | 0.07 | 0.0200 | 0.02 | 0.0050 | Note 49 |
| Year | N | 23 | 1 | 1.6 | 1.1 | 0 | 100 | 1 | 0 | 0 | 0.8 | 21 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 23 | 0.2 | 0.02 | 0.04 | 0.01 | 0.02 | Note 47 |
| 4 | Vol/NH3 | Cattle | YES | 0.5 | 0.3 | NON | 100.00 | SBA | 1.000 | NO | 0.5 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.0 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.5 | Dairy | 2 | | | | 0.2 | Deep | 0.0 | 0.01 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 23 | 1 | 0.2 | 0.2 | 0 | 100 | 10 | 0 | 0 | 0.1 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23 | 0.0 | 0.00 | 0.01 | 0.00 | 0.00 | Note 47 |
| 5 | Vol/NH3 | Cattle | YES | 0.1 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.1 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.1 | Dairy | 2 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 23 | 1 | 0.0 | 0.0 | 0 | 100 | 22 | 1 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.0 | Cattle | 0.84 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.113 | 0.572 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 23 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 23 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 23 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 23 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.14 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.95 | 1.22 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 4.67 | 2.65 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 4.67 | 2.65 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.14 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.95 | Total including natural | 5.61 | 3.59 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND CATTLE DAIRY Note 43
AND CONTINUING WITH MANURE FROM GRAZING CATTLE TO PRODUCE WINTER WHEAT FOR CATTLE DAIRY Note 43

| Year | | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | N | | | | | | | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | 25.4 | 25.4 | | | 3.64 | 5.41 | 3.25 | 3.82 | Note 45 |
| Year | N NH3 | | | | | | | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | 6.7 | 6.7 | | | 0.07 | | 0.07 | | Note 45 |
| 1-10 | N leach | | | | | | | FIRST YEAR | 0.0439 | 0.0340 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | 67.9 | 67.9 | | | 1.70 | | 0.51 | | Note 45 |
| | | | | | | | | TOTAL | 0.0758 | 0.0536 | TOTAL N AMOUNTS IN KG AND % | | | 100.0 | 100.0 | | | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.2127 | | 0.1505 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 21 | 71.3 | 21.0 | 0.0 | 0.0 | 0.0 | 24 | 50.2 | 2.45 | 3.13 | 2.20 | 2.42 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Cattle | 0.84 | | | | 0.0 | Cattle | 0.0 | 0.02 | 0.0125 | 0.02 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Dairy | 2 | | | | 17.5 | Graz | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 50.2 | 50.2 | 0 | 100 | 11 | 0 | 0 | 46.7 | 21 | 14.5 | 3.4 | 0.0 | 0.0 | 0.0 | 24 | 11.1 | 0.93 | 1.77 | 0.82 | 1.09 | Note 47 |
| 2 | Vol/NH3 | Cattle | YES | 0.0 | 3.5 | NON | 100.00 | WWH | 1.000 | NO | 32.2 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.04 | 0.0125 | 0.04 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 32.2 | Dairy | 2 | | | | 10.2 | Graz | 0.0 | 0.80 | 0.0200 | 0.24 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 11.1 | 11.1 | 0 | 100 | 11 | 0 | 0 | 10.3 | 21 | 3.2 | 0.8 | 0.0 | 0.0 | 0.0 | 24 | 2.5 | 0.21 | 0.39 | 0.18 | 0.24 | Note 47 |
| 3 | Vol/NH3 | Cattle | YES | 0.0 | 0.8 | NON | 100.00 | WWH | 1.000 | NO | 7.1 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 7.1 | Dairy | 2 | | | | 2.3 | Graz | 0.0 | 0.18 | 0.0200 | 0.05 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 2.5 | 2.5 | 0 | 100 | 1 | 0 | 0 | 2.3 | 21 | 0.7 | 0.2 | 0.0 | 0.0 | 0.0 | 24 | 0.5 | 0.04 | 0.09 | 0.04 | 0.05 | Note 47 |
| 4 | Vol/NH3 | Cattle | YES | 0.0 | 0.2 | NON | 100.00 | SBA | 1.000 | NO | 1.6 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.711 | 0.0 | 1.6 | Dairy | 2 | | | | 0.5 | Graz | 0.0 | 0.04 | 0.0200 | 0.01 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 0.5 | 0.5 | 0 | 100 | 10 | 0 | 0 | 0.5 | 21 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 24 | 0.1 | 0.01 | 0.02 | 0.01 | 0.01 | Note 47 |
| 5 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.3 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.712 | 0.0 | 0.3 | Dairy | 2 | | | | 0.1 | Graz | 0.0 | 0.01 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 0.1 | 0.1 | 0 | 100 | 22 | 1 | 0 | 0.1 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.1 | Cattle | 0.84 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.113 | 0.655 | 0.0 | 0.1 | Dairy | 2 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.711 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.712 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.15 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.97 | 1.25 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 5.41 | 3.82 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 5.41 | 3.82 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.15 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.97 | Total including natural | 6.38 | 4.79 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND CATTLE BEEF Note 43
AND CONTINUING WITH LIQUID CATTLE MANURE TO PRODUCE WINTER WHEAT FOR CATTLE BEEF Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Amounts Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Fodder: Uses #21-61 Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | N2O-N emission IPCC 1996 Total | N2O-N emission IPCC 2006 Each | N2O-N emission IPCC 2006 Total | Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | N | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | 25.2 | 24.9 | | | | 2.33 | 3.81 | 2.23 | 2.87 | Note 45 |
| Year | N NH3 | | ACCORDING TO | | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | 27.9 | 27.6 | | | | 0.28 | | 0.28 | | Note 45 |
| 1-10 | N leach | | FIRST YEAR | | 0.0311 | 0.0239 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | 48.1 | 47.6 | | | | 1.20 | | 0.36 | | Note 45 |
| | | | TOTAL | | 0.0534 | 0.0403 | TOTAL N AMOUNTS IN KG AND % | | | | | | | 101.1 | 100.0 | | | | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.1512 | | 0.1142 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 22 | 71.3 | 18.6 | 0.0 | 0.0 | 0.0 | 21 | 52.7 | 1.49 | 2.22 | 1.44 | 1.70 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Cattle | 0.84 | | | | 0.0 | Cattle | 4.2 | 0.06 | 0.0125 | 0.06 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Beef | 2 | | | | 17.5 | Liquid | 0.0 | 0.66 | 0.0010 | 0.20 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 49.3 | 48.2 | 0 | 100 | 11 | 0 | 0 | 36.2 | 22 | 21.7 | 4.5 | 0.0 | 0.0 | 0.0 | 21 | 17.2 | 0.57 | 1.07 | 0.54 | 0.79 | Note 47 |
| 2 | Vol/NH3 | Cattle | YES | 1.1 | 12.1 | NON | 100.00 | WWH | 1.000 | NO | 14.5 | Cattle | 0.67 | | | | 0.0 | Cattle | 1.4 | 0.15 | 0.0125 | 0.15 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 14.5 | Beef | 2 | | | | 7.9 | Liquid | 0.0 | 0.36 | 0.0010 | 0.11 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 16.1 | 15.7 | 0 | 100 | 11 | 0 | 0 | 11.8 | 22 | 7.1 | 1.5 | 0.0 | 0.0 | 0.0 | 21 | 5.6 | 0.18 | 0.35 | 0.18 | 0.26 | Note 47 |
| 3 | Vol/NH3 | Cattle | YES | 0.4 | 3.9 | NON | 100.00 | WWH | 1.000 | NO | 4.7 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.4 | 0.05 | 0.0125 | 0.05 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 4.7 | Beef | 2 | | | | 2.6 | Liquid | 0.0 | 0.12 | 0.0010 | 0.04 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 5.2 | 5.1 | 0 | 100 | 1 | 0 | 0 | 3.8 | 22 | 2.1 | 0.4 | 0.0 | 0.0 | 0.0 | 21 | 1.7 | 0.06 | 0.12 | 0.06 | 0.08 | Note 47 |
| 4 | Vol/NH3 | Cattle | YES | 0.1 | 1.3 | NON | 100.00 | SBA | 1.000 | NO | 1.7 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.1 | 0.02 | 0.0125 | 0.02 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 1.7 | Beef | 2 | | | | 0.8 | Liquid | 0.0 | 0.04 | 0.0010 | 0.01 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 1.6 | 1.6 | 0 | 100 | 10 | 0 | 0 | 1.2 | 22 | 0.7 | 0.1 | 0.0 | 0.0 | 0.0 | 21 | 0.5 | 0.02 | 0.04 | 0.02 | 0.03 | Note 47 |
| 5 | Vol/NH3 | Cattle | YES | 0.0 | 0.4 | NON | 100.00 | WBA | 1.000 | NO | 0.5 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.444 | 0.0 | 0.5 | Beef | 2 | | | | 0.2 | Liquid | 0.0 | 0.01 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 0.5 | 0.5 | 0 | 100 | 22 | 1 | 0 | 0.4 | 22 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 21 | 0.2 | 0.01 | 0.01 | 0.01 | 0.01 | Note 47 |
| 6 | Vol/NH3 | Cattle | YES | 0.0 | 0.1 | NON | 100.00 | WRS | 1.113 | NO | 0.1 | Cattle | 0.84 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.113 | 0.335 | 0.0 | 0.1 | Beef | 2 | | | | 0.1 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 0.2 | 0.2 | 0 | 100 | 11 | 0 | 0 | 0.1 | 22 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 21 | 0.1 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 0.0 | Beef | 2 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 0.1 | 0.1 | 0 | 100 | 11 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 0.0 | Beef | 2 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Beef | 2 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.444 | 0.0 | 0.0 | Beef | 2 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.28 | 0.09 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.20 | 1.55 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 3.81 | 2.87 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 3.81 | 2.87 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.28 | 0.09 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 1.20 | Total including natural | 5.00 | 4.07 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND CATTLE BEEF Note 43
AND CONTINUING WITH SEPARATED CATTLE MANURE TO PRODUCE WINTER WHEAT FOR CATTLE BEEF Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Amounts Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Fodder: Uses #21-61 Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | N2O-N emission IPCC 1996 Total | N2O-N emission IPCC 2006 Each | N2O-N emission IPCC 2006 Total | Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | N | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | 24.2 | 23.9 | | | | 2.93 | 4.43 | 2.18 | 2.82 | Note 45 |
| Year | N NH3 | | ACCORDING TO | | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | 28.4 | 28.1 | | | | 0.28 | | 0.28 | | Note 45 |
| 1-10 | N leach | | FIRST YEAR | | 0.0376 | 0.0238 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | 48.5 | 47.9 | | | | 1.21 | | 0.36 | | Note 45 |
| | | | TOTAL | | 0.0621 | 0.0396 | TOTAL N AMOUNTS IN KG AND % | | | | | | | 101.1 | 100.0 | | | | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.1828 | | 0.1166 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 22 | 71.3 | 18.6 | 0.0 | 0.0 | 0.0 | 22 | 52.7 | 1.97 | 2.68 | 1.45 | 1.69 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Cattle | 0.84 | | | | 0.0 | Cattle | 2.6 | 0.05 | 0.0125 | 0.05 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Beef | 2 | | | | 17.5 | Sep | 0.0 | 0.66 | 0.0105 | 0.20 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 50.9 | 46.6 | 0 | 100 | 11 | 0 | 0 | 34.9 | 22 | 19.5 | 4.0 | 0.0 | 0.0 | 0.0 | 22 | 15.4 | 0.69 | 1.24 | 0.52 | 0.80 | Note 47 |
| 2 | Vol/NH3 | Cattle | YES | 4.3 | 11.6 | NON | 100.00 | WWH | 1.000 | NO | 15.5 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.8 | 0.17 | 0.0125 | 0.17 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 15.5 | Beef | 2 | | | | 7.6 | Sep | 0.0 | 0.39 | 0.0105 | 0.12 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 14.9 | 13.6 | 0 | 100 | 11 | 0 | 0 | 10.2 | 22 | 5.7 | 1.2 | 0.0 | 0.0 | 0.0 | 22 | 4.5 | 0.20 | 0.36 | 0.15 | 0.23 | Note 47 |
| 3 | Vol/NH3 | Cattle | YES | 1.3 | 3.4 | NON | 100.00 | WWH | 1.000 | NO | 4.5 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.2 | 0.05 | 0.0125 | 0.05 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 4.5 | Beef | 2 | | | | 2.2 | Sep | 0.0 | 0.11 | 0.0105 | 0.03 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 4.4 | 4.0 | 0 | 100 | 1 | 0 | 0 | 3.0 | 22 | 1.5 | 0.3 | 0.0 | 0.0 | 0.0 | 22 | 1.2 | 0.06 | 0.11 | 0.04 | 0.07 | Note 47 |
| 4 | Vol/NH3 | Cattle | YES | 0.4 | 1.0 | NON | 100.00 | SBA | 1.000 | NO | 1.4 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.1 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 1.4 | Beef | 2 | | | | 0.6 | Sep | 0.0 | 0.04 | 0.0105 | 0.01 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 1.2 | 1.1 | 0 | 100 | 10 | 0 | 0 | 0.8 | 22 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 22 | 0.3 | 0.02 | 0.03 | 0.01 | 0.02 | Note 47 |
| 5 | Vol/NH3 | Cattle | YES | 0.1 | 0.3 | NON | 100.00 | WBA | 1.000 | NO | 0.4 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.4 | Beef | 2 | | | | 0.2 | Sep | 0.0 | 0.01 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 0.3 | 0.3 | 0 | 100 | 22 | 1 | 0 | 0.2 | 22 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 22 | 0.1 | 0.00 | 0.01 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | Cattle | YES | 0.0 | 0.1 | NON | 100.00 | WRS | 1.113 | NO | 0.1 | Cattle | 0.84 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.113 | 0.382 | 0.0 | 0.1 | Beef | 2 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 0.1 | 0.1 | 0 | 100 | 11 | 0 | 0 | 0.1 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Beef | 2 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Beef | 2 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Beef | 2 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 22 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.016 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Beef | 2 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.25 | 0.07 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.13 | 1.47 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 4.43 | 2.82 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 4.43 | 2.82 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.25 | 0.07 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.13 Total including natural | 5.56 | 3.96 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND CATTLE BEEF Note 43
AND CONTINUING WITH CATTLE DEEP LITTER TO PRODUCE WINTER WHEAT FOR CATTLE BEEF Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | | | 21.5 | 19.6 | 3.20 | 4.81 | 1.96 | 2.72 Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | | | 39.1 | 35.7 | 0.39 | | 0.39 | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0442 | 0.0238 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | | | 49.0 | 44.7 | 1.22 | | 0.37 | Note 45 |
| | | | TOTAL | | 0.0675 | 0.0382 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | | | | 109.5 | 100.0 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.2242 | | 0.1267 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 22 | 71.3 | 18.6 | 0.0 | 0.0 | 0.0 | 23 | 52.7 | 2.43 | 3.15 | 1.44 | 1.70 Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Cattle | 0.84 | | | | 0.0 | Cattle | 3.2 | 0.05 | 0.0125 | 0.05 | 0.0100 Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Beef | 2 | | | | 17.5 | Deep | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0050 Note 49 |
| Year | N | 23 | 1 | 57.5 | 40.2 | 0 | 100 | 11 | 0 | 0 | 30.2 | 22 | 11.6 | 2.4 | 0.0 | 0.0 | 0.0 | 23 | 9.2 | 0.63 | 1.37 | 0.43 | 0.84 Note 47 |
| 2 | Vol/NH3 | Cattle | YES | 17.2 | 10.1 | NON | 100.00 | WWH | 1.000 | NO | 18.5 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.6 | 0.28 | 0.0125 | 0.28 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 18.5 | Beef | 2 | | | | 6.6 | Deep | 0.0 | 0.46 | 0.0200 | 0.14 | 0.0050 Note 49 |
| Year | N | 23 | 1 | 10.0 | 7.0 | 0 | 100 | 11 | 0 | 0 | 5.3 | 22 | 2.0 | 0.4 | 0.0 | 0.0 | 0.0 | 23 | 1.6 | 0.11 | 0.24 | 0.07 | 0.15 Note 47 |
| 3 | Vol/NH3 | Cattle | YES | 3.0 | 1.8 | NON | 100.00 | WWH | 1.000 | NO | 3.2 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.1 | 0.05 | 0.0125 | 0.05 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 3.2 | Beef | 2 | | | | 1.2 | Deep | 0.0 | 0.08 | 0.0200 | 0.02 | 0.0050 Note 49 |
| Year | N | 23 | 1 | 1.8 | 1.2 | 0 | 100 | 1 | 0 | 0 | 0.9 | 22 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 23 | 0.3 | 0.02 | 0.04 | 0.01 | 0.03 Note 47 |
| 4 | Vol/NH3 | Cattle | YES | 0.5 | 0.3 | NON | 100.00 | SBA | 1.000 | NO | 0.6 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.0 | 0.01 | 0.0125 | 0.01 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.6 | Beef | 2 | | | | 0.2 | Deep | 0.0 | 0.01 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 23 | 1 | 0.3 | 0.2 | 0 | 100 | 10 | 0 | 0 | 0.2 | 22 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 23 | 0.0 | 0.00 | 0.01 | 0.00 | 0.00 Note 47 |
| 5 | Vol/NH3 | Cattle | YES | 0.1 | 0.1 | NON | 100.00 | WBA | 1.000 | NO | 0.1 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.1 | Beef | 2 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 23 | 1 | 0.0 | 0.0 | 0 | 100 | 22 | 1 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 6 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.0 | Cattle | 0.84 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.113 | 0.572 | 0.0 | 0.0 | Beef | 2 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 23 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 7 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 0.0 | Beef | 2 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 23 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 8 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 0.0 | Beef | 2 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 23 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 9 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Beef | 2 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 23 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 10 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.159 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Beef | 2 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.15 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.96 | 1.24 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 4.81 | 2.72 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 4.81 | 2.72 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.15 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.96 | Total including natural | 5.77 | 3.68 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND CATTLE BEEF Note 43
AND CONTINUING WITH MANURE FROM GRAZING CATTLE TO PRODUCE WINTER WHEAT FOR CATTLE BEEF Note 43

| Year | | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | N | | | | | | | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | 22.6 | 22.6 | 3.78 | 5.60 | 3.37 | 3.97 | Note 45 |
| Year | N NH3 | | | | | | | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | 7.0 | 7.0 | 0.07 | | 0.07 | | Note 45 |
| 1-10 | N leach | | | | | | | FIRST YEAR | 0.0446 | 0.0347 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | 70.4 | 70.4 | 1.76 | | 0.53 | | Note 45 |
| | | | | | | | | TOTAL | 0.0786 | 0.0557 | TOTAL N AMOUNTS IN KG AND % | | | | | | | 100.0 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | | 0.2475 | | 0.1753 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 22 | 71.3 | 18.6 | 0.0 | 0.0 | 0.0 | 24 | 52.7 | 2.50 | 3.18 | 2.25 | 2.47 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Cattle | 0.84 | | | | | 0.0 | Cattle | 0.0 | 0.02 | 0.0125 | 0.02 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Beef | 2 | | | | | 17.5 | Graz | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 52.7 | 52.7 | 0 | 100 | 11 | 0 | 0 | 49.0 | 22 | 15.3 | 3.2 | 0.0 | 0.0 | 0.0 | 24 | 12.1 | 0.99 | 1.87 | 0.87 | 1.16 | Note 47 |
| 2 | Vol/NH3 | Cattle | YES | 0.0 | 3.7 | NON | 100.00 | WWH | 1.000 | NO | 33.8 | Cattle | 0.67 | | | | | 0.0 | Cattle | 0.0 | 0.04 | 0.0125 | 0.04 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 33.8 | Beef | 2 | | | | | 10.7 | Graz | 0.0 | 0.84 | 0.0200 | 0.25 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 12.1 | 12.1 | 0 | 100 | 11 | 0 | 0 | 11.2 | 22 | 3.5 | 0.7 | 0.0 | 0.0 | 0.0 | 24 | 2.8 | 0.23 | 0.43 | 0.20 | 0.27 | Note 47 |
| 3 | Vol/NH3 | Cattle | YES | 0.0 | 0.8 | NON | 100.00 | WWH | 1.000 | NO | 7.7 | Cattle | 0.67 | | | | | 0.0 | Cattle | 0.0 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 7.7 | Beef | 2 | | | | | 2.5 | Graz | 0.0 | 0.19 | 0.0200 | 0.06 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 2.8 | 2.8 | 0 | 100 | 1 | 0 | 0 | 2.6 | 22 | 0.7 | 0.1 | 0.0 | 0.0 | 0.0 | 24 | 0.6 | 0.05 | 0.10 | 0.04 | 0.06 | Note 47 |
| 4 | Vol/NH3 | Cattle | YES | 0.0 | 0.2 | NON | 100.00 | SBA | 1.000 | NO | 1.8 | Cattle | 0.65 | | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.711 | 0.0 | 1.8 | Beef | 2 | | | | | 0.5 | Graz | 0.0 | 0.05 | 0.0200 | 0.01 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 0.6 | 0.6 | 0 | 100 | 10 | 0 | 0 | 0.6 | 22 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 24 | 0.1 | 0.01 | 0.02 | 0.01 | 0.01 | Note 47 |
| 5 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.4 | Cattle | 0.66 | | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.712 | 0.0 | 0.4 | Beef | 2 | | | | | 0.1 | Graz | 0.0 | 0.01 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 0.1 | 0.1 | 0 | 100 | 22 | 1 | 0 | 0.1 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.1 | Cattle | 0.84 | | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.113 | 0.655 | 0.0 | 0.1 | Beef | 2 | | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 0.0 | Beef | 2 | | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Cattle | 0.67 | | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 0.0 | Beef | 2 | | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Cattle | 0.65 | | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.711 | 0.0 | 0.0 | Beef | 2 | | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 24 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Cattle | 0.66 | | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.712 | 0.0 | 0.0 | Beef | 2 | | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.16 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.98 | 1.27 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 5.60 | 3.97 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 5.60 | 3.97 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.16 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.98 | Total including natural | 6.59 | 4.95 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND PIG PORK Note 43
AND CONTINUING WITH LIQUID PIG MANURE TO PRODUCE WINTER WHEAT FOR PIG PORK Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | | 38.9 | 38.9 | 2.00 | 3.20 | 1.86 | 2.38 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | | 22.4 | 22.4 | 0.22 | | 0.22 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0311 | | 0.0232 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | | 38.7 | 38.7 | 0.97 | | 0.29 | | Note 45 |
| | | | TOTAL | | 0.0448 | | 0.0333 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | | | 100.0 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | | 0.0822 | | 0.0611 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 32 | 71.3 | 29.8 | 0.0 | 0.0 | 0.0 | 31 | 41.5 | 1.48 | 2.22 | 1.37 | 1.65 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Pig | 0.84 | | | | 0.0 | Pig | 5.8 | 0.08 | 0.0125 | 0.08 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Pork | 3 | | | | 17.5 | Liquid | 0.0 | 0.66 | 0.0010 | 0.20 | 0.0050 | Note 49 |
| Year | N | 31 | 1 | 35.7 | 34.7 | 0 | 100 | 11 | 0 | 0 | 26.0 | 32 | 16.7 | 7.0 | 0.0 | 0.0 | 0.0 | 31 | 9.7 | 0.41 | 0.75 | 0.37 | 0.55 | Note 47 |
| 2 | Vol/NH3 | Pig | YES | 1.0 | 8.7 | NON | 100.00 | WWH | 1.000 | NO | 9.3 | Pig | 0.67 | | | | 0.0 | Pig | 1.4 | 0.11 | 0.0125 | 0.11 | 0.0100 | Note 48 |
| | N leach | Liquid | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 9.3 | Pork | 3 | | | | 5.7 | Liquid | 0.0 | 0.23 | 0.0010 | 0.07 | 0.0050 | Note 49 |
| Year | N | 31 | 1 | 8.4 | 8.2 | 0 | 100 | 11 | 0 | 0 | 6.1 | 32 | 3.9 | 1.6 | 0.0 | 0.0 | 0.0 | 31 | 2.3 | 0.10 | 0.18 | 0.09 | 0.13 | Note 47 |
| 3 | Vol/NH3 | Pig | YES | 0.2 | 2.0 | NON | 100.00 | WWH | 1.000 | NO | 2.2 | Pig | 0.67 | | | | 0.0 | Pig | 0.3 | 0.03 | 0.0125 | 0.03 | 0.0100 | Note 48 |
| | N leach | Liquid | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 2.2 | Pork | 3 | | | | 1.3 | Liquid | 0.0 | 0.05 | 0.0010 | 0.02 | 0.0050 | Note 49 |
| Year | N | 31 | 1 | 2.0 | 1.9 | 0 | 100 | 1 | 0 | 0 | 1.4 | 32 | 0.9 | 0.4 | 0.0 | 0.0 | 0.0 | 31 | 0.5 | 0.02 | 0.04 | 0.02 | 0.03 | Note 47 |
| 4 | Vol/NH3 | Pig | YES | 0.1 | 0.5 | NON | 100.00 | SBA | 1.000 | NO | 0.6 | Pig | 0.65 | | | | 0.0 | Pig | 0.1 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Liquid | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.403 | 0.0 | 0.6 | Pork | 3 | | | | 0.3 | Liquid | 0.0 | 0.01 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 31 | 1 | 0.4 | 0.4 | 0 | 100 | 10 | 0 | 0 | 0.3 | 32 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 31 | 0.1 | 0.00 | 0.01 | 0.00 | 0.01 | Note 47 |
| 5 | Vol/NH3 | Pig | YES | 0.0 | 0.1 | NON | 100.00 | WBA | 1.000 | NO | 0.1 | Pig | 0.66 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.404 | 0.0 | 0.1 | Pork | 3 | | | | 0.1 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 31 | 1 | 0.1 | 0.1 | 0 | 100 | 22 | 1 | 0 | 0.1 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.0 | Pig | 0.84 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 1.000 | 1.000 | | ORG | 1.00 | 1.113 | 0.287 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 31 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Pig | 0.67 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 31 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Pig | 0.67 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 31 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Pig | 0.65 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.403 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 31 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Pig | 0.66 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.404 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.22 | 0.05 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.06 | 1.37 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 3.20 | 2.38 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 3.20 | 2.38 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.22 | 0.05 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.06 | Total including natural | 4.25 | 3.43 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND PIG PORK Note 43
AND CONTINUING WITH SEPARATED PIG MANURE TO PRODUCE WINTER WHEAT FOR PIG PORK Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | N | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | | 35.5 | 35.1 | 2.24 | 3.45 | 1.71 | 2.27 Note 45 |
| Year | N NH3 | | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | 28.1 | 27.9 | 0.28 | | 0.28 | Note 45 |
| 1-10 | N leach | | FIRST YEAR | | 0.0359 | | 0.0233 | | | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | 37.4 | 37.0 | 0.93 | | 0.28 | Note 45 |
| | | | TOTAL | | 0.0484 | | 0.0319 | | | | TOTAL N AMOUNTS IN KG AND % | | | | | | | 101.0 | 100.0 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.0973 | | 0.0640 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 32 | 71.3 | 29.8 | 0.0 | 0.0 | 0.0 | 32 | 41.5 | 1.80 | 2.56 | 1.37 | 1.66 Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Pig | 0.84 | | | | 0.0 | Pig | 7.5 | 0.10 | 0.0125 | 0.10 | 0.0100 Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Pork | 3 | | | | 17.5 | Sep | 0.0 | 0.66 | 0.0105 | 0.20 | 0.0050 Note 49 |
| Year | N | 32 | 1 | 34.8 | 27.4 | 0 | 100 | 11 | 0 | 0 | 20.5 | 32 | 11.4 | 4.8 | 0.0 | 0.0 | 0.0 | 32 | 6.7 | 0.37 | 0.75 | 0.29 | 0.51 Note 47 |
| 2 | Vol/NH3 | Pig | YES | 7.5 | 6.8 | NON | 100.00 | WWH | 1.000 | NO | 9.1 | Pig | 0.67 | | | | 0.0 | Pig | 1.2 | 0.16 | 0.0125 | 0.16 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.024 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 9.1 | Pork | 3 | | | | 4.5 | Sep | 0.0 | 0.23 | 0.0105 | 0.07 | 0.0050 Note 49 |
| Year | N | 32 | 1 | 5.6 | 4.4 | 0 | 100 | 11 | 0 | 0 | 3.3 | 32 | 1.8 | 0.8 | 0.0 | 0.0 | 0.0 | 32 | 1.1 | 0.06 | 0.12 | 0.05 | 0.08 Note 47 |
| 3 | Vol/NH3 | Pig | YES | 1.2 | 1.1 | NON | 100.00 | WWH | 1.000 | NO | 1.5 | Pig | 0.67 | | | | 0.0 | Pig | 0.2 | 0.02 | 0.0125 | 0.02 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.024 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 1.5 | Pork | 3 | | | | 0.7 | Sep | 0.0 | 0.04 | 0.0105 | 0.01 | 0.0050 Note 49 |
| Year | N | 32 | 1 | 0.9 | 0.7 | 0 | 100 | 1 | 0 | 0 | 0.5 | 32 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 32 | 0.2 | 0.01 | 0.02 | 0.01 | 0.01 Note 47 |
| 4 | Vol/NH3 | Pig | YES | 0.2 | 0.2 | NON | 100.00 | SBA | 1.000 | NO | 0.3 | Pig | 0.65 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.024 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.3 | Pork | 3 | | | | 0.1 | Sep | 0.0 | 0.01 | 0.0105 | 0.00 | 0.0050 Note 49 |
| Year | N | 32 | 1 | 0.1 | 0.1 | 0 | 100 | 10 | 0 | 0 | 0.1 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 5 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Pig | 0.66 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.024 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 Note 49 |
| Year | N | 32 | 1 | 0.0 | 0.0 | 0 | 100 | 22 | 1 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 6 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.0 | Pig | 0.84 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.024 | | ORG | 1.00 | 1.113 | 0.382 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 Note 49 |
| Year | N | 32 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 7 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Pig | 0.67 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.024 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 Note 49 |
| Year | N | 32 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 8 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Pig | 0.67 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.024 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 Note 49 |
| Year | N | 32 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 9 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Pig | 0.65 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.024 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 Note 49 |
| Year | N | 32 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 10 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Pig | 0.66 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.024 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.15 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.95 | 1.23 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 3.45 | 2.27 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 3.45 | 2.27 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.15 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.95 | Total including natural | 4.40 | 3.22 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND PIG PORK Note 43
AND CONTINUING WITH PIG DEEP LITTER TO PRODUCE WINTER WHEAT FOR PIG PORK Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | 34.0 | 32.5 | 2.42 | 3.65 | 1.60 | 2.22 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | 36.0 | 34.5 | 0.36 | | 0.36 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0400 | | 0.0235 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | 34.5 | 33.0 | 0.86 | | 0.26 | | Note 45 |
| | | | TOTAL | | 0.0512 | | 0.0312 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | | 104.5 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.1073 | | 0.0654 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 32 | 71.3 | 29.8 | 0.0 | 0.0 | 0.0 | 33 | 41.5 | 2.06 | 2.85 | 1.35 | 1.68 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Pig | 0.84 | | | | 0.0 | Pig | 10.4 | 0.13 | 0.0125 | 0.13 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Pork | 3 | | | | 17.5 | Deep | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0050 | Note 49 |
| Year | N | 33 | 1 | 35.1 | 21.0 | 0 | 100 | 11 | 0 | 0 | 15.8 | 32 | 8.8 | 3.7 | 0.0 | 0.0 | 0.0 | 33 | 5.1 | 0.32 | 0.70 | 0.22 | 0.48 | Note 47 |
| 2 | Vol/NH3 | Pig | YES | 14.0 | 5.3 | NON | 100.00 | WWH | 1.000 | NO | 7.0 | Pig | 0.67 | | | | 0.0 | Pig | 1.3 | 0.21 | 0.0125 | 0.21 | 0.0100 | Note 48 |
| | N leach | Deep | 0.867 | 1.127 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 7.0 | Pork | 3 | | | | 3.5 | Deep | 0.0 | 0.17 | 0.0200 | 0.05 | 0.0050 | Note 49 |
| Year | N | 33 | 1 | 4.3 | 2.6 | 0 | 100 | 11 | 0 | 0 | 1.9 | 32 | 1.1 | 0.5 | 0.0 | 0.0 | 0.0 | 33 | 0.6 | 0.04 | 0.09 | 0.03 | 0.06 | Note 47 |
| 3 | Vol/NH3 | Pig | YES | 1.7 | 0.6 | NON | 100.00 | WWH | 1.000 | NO | 0.9 | Pig | 0.67 | | | | 0.0 | Pig | 0.2 | 0.03 | 0.0125 | 0.03 | 0.0100 | Note 48 |
| | N leach | Deep | 0.867 | 1.127 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.9 | Pork | 3 | | | | 0.4 | Deep | 0.0 | 0.02 | 0.0200 | 0.01 | 0.0050 | Note 49 |
| Year | N | 33 | 1 | 0.5 | 0.3 | 0 | 100 | 1 | 0 | 0 | 0.2 | 32 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 33 | 0.1 | 0.00 | 0.01 | 0.00 | 0.01 | Note 47 |
| 4 | Vol/NH3 | Pig | YES | 0.2 | 0.1 | NON | 100.00 | SBA | 1.000 | NO | 0.1 | Pig | 0.65 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.867 | 1.127 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.1 | Pork | 3 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 33 | 1 | 0.1 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 5 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Pig | 0.66 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.867 | 1.127 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 33 | 1 | 0.0 | 0.0 | 0 | 100 | 22 | 1 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.0 | Pig | 0.84 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.867 | 1.127 | | ORG | 1.00 | 1.113 | 0.382 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 33 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Pig | 0.67 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.867 | 1.127 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 33 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Pig | 0.67 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.867 | 1.127 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 33 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Pig | 0.65 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.867 | 1.127 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 33 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Pig | 0.66 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.867 | 1.127 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.11 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.90 | 1.17 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 3.65 | 2.22 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 3.65 | 2.22 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.11 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.90 | Total including natural | 4.55 | 3.12 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND PIG PORK Note 43
AND CONTINUING WITH MANURE FROM ROOTING PIGS TO PRODUCE WINTER WHEAT FOR PIG PORK Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | | 39.3 | 39.3 | 3.31 | 4.74 | 2.94 | 3.41 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | | 6.0 | 6.0 | 0.06 | | 0.06 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0415 | | 0.0315 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | | 54.6 | 54.6 | 1.37 | | 0.41 | | Note 45 |
| | | | TOTAL | | 0.0664 | | 0.0478 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | | | 100.0 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | | 0.1205 | | 0.0867 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 32 | 71.3 | 29.8 | 0.0 | 0.0 | 0.0 | 34 | 41.5 | 2.27 | 2.96 | 2.03 | 2.25 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Pig | 0.84 | | | | 0.0 | Pig | 0.0 | 0.02 | 0.0125 | 0.02 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Pork | 3 | | | | 17.5 | Root | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0200 | Note 49 |
| Year | N | 34 | 1 | 41.5 | 41.5 | 0 | 100 | 11 | 0 | 0 | 38.6 | 32 | 17.3 | 7.2 | 0.0 | 0.0 | 0.0 | 34 | 10.1 | 0.79 | 1.35 | 0.69 | 0.88 | Note 47 |
| 2 | Vol/NH3 | Pig | YES | 0.0 | 2.9 | NON | 100.00 | WWH | 1.000 | NO | 21.3 | Pig | 0.67 | | | | 0.0 | Pig | 0.0 | 0.03 | 0.0125 | 0.03 | 0.0100 | Note 48 |
| | N leach | Root | 0.699 | 1.000 | | ORG | 1.00 | 1.000 | 0.551 | 0.0 | 21.3 | Pork | 3 | | | | 8.4 | Root | 0.0 | 0.53 | 0.0200 | 0.16 | 0.0200 | Note 49 |
| Year | N | 34 | 1 | 10.1 | 10.1 | 0 | 100 | 11 | 0 | 0 | 9.4 | 32 | 4.2 | 1.8 | 0.0 | 0.0 | 0.0 | 34 | 2.5 | 0.19 | 0.33 | 0.17 | 0.21 | Note 47 |
| 3 | Vol/NH3 | Pig | YES | 0.0 | 0.7 | NON | 100.00 | WWH | 1.000 | NO | 5.2 | Pig | 0.67 | | | | 0.0 | Pig | 0.0 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Root | 0.699 | 1.000 | | ORG | 1.00 | 1.000 | 0.551 | 0.0 | 5.2 | Pork | 3 | | | | 2.1 | Root | 0.0 | 0.13 | 0.0200 | 0.04 | 0.0200 | Note 49 |
| Year | N | 34 | 1 | 2.5 | 2.5 | 0 | 100 | 1 | 0 | 0 | 2.3 | 32 | 1.0 | 0.4 | 0.0 | 0.0 | 0.0 | 34 | 0.6 | 0.05 | 0.08 | 0.04 | 0.05 | Note 47 |
| 4 | Vol/NH3 | Pig | YES | 0.0 | 0.2 | NON | 100.00 | SBA | 1.000 | NO | 1.3 | Pig | 0.65 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Root | 0.699 | 1.000 | | ORG | 1.00 | 1.000 | 0.583 | 0.0 | 1.3 | Pork | 3 | | | | 0.5 | Root | 0.0 | 0.03 | 0.0200 | 0.01 | 0.0200 | Note 49 |
| Year | N | 34 | 1 | 0.6 | 0.6 | 0 | 100 | 10 | 0 | 0 | 0.5 | 32 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 34 | 0.1 | 0.01 | 0.02 | 0.01 | 0.01 | Note 47 |
| 5 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.3 | Pig | 0.66 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Root | 0.699 | 1.000 | | ORG | 1.00 | 1.000 | 0.583 | 0.0 | 0.3 | Pork | 3 | | | | 0.1 | Root | 0.0 | 0.01 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 34 | 1 | 0.1 | 0.1 | 0 | 100 | 22 | 1 | 0 | 0.1 | 32 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 34 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.1 | Pig | 0.84 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Root | 0.699 | 1.000 | | ORG | 1.00 | 1.113 | 0.502 | 0.0 | 0.1 | Pork | 3 | | | | 0.0 | Root | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 34 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 34 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Pig | 0.67 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Root | 0.699 | 1.000 | | ORG | 1.00 | 1.000 | 0.551 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Root | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 34 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 34 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Pig | 0.67 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Root | 0.699 | 1.000 | | ORG | 1.00 | 1.000 | 0.551 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Root | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 34 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 34 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Pig | 0.65 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Root | 0.699 | 1.000 | | ORG | 1.00 | 1.000 | 0.583 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Root | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year | N | 34 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 34 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Pig | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Pig | 0.66 | | | | 0.0 | Pig | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Root | 0.699 | 1.000 | | ORG | 1.00 | 1.000 | 0.583 | 0.0 | 0.0 | Pork | 3 | | | | 0.0 | Root | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.18 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.01 | 1.31 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 4.74 | 3.41 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 4.74 | 3.41 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.18 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.01 | Total including natural | 5.75 | 4.42 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND POULTRY MEAT Note 43
AND CONTINUING WITH LIQUID POULTRY MANURE TO PRODUCE WINTER WHEAT FOR POULTRY MEAT Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | 44.3 | 44.3 | 1.91 | 3.05 | 1.75 | 2.21 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | 16.6 | 16.6 | 0.17 | | 0.17 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0307 | 0.0226 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | 39.0 | 39.0 | 0.98 | | 0.29 | | Note 45 |
| | | | TOTAL | | 0.0428 | 0.0309 | TOTAL N AMOUNTS IN KG AND % | | | | | | | 100.0 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | 0.0688 | | 0.0497 | Note 46 |
| Year N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 42 | 71.3 | 36.4 | 0.0 | 0.0 | 0.0 | 41 | 34.9 | 1.47 | 2.19 | 1.35 | 1.61 | Note 47 |
| 1 Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Poultry | 0.84 | | | | 0.0 | Poultry | 3.5 | 0.06 | 0.0125 | 0.06 | 0.0100 | Note 48 |
| N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Meat | 4 | | | | 17.5 | Liquid | 0.0 | 0.66 | 0.0010 | 0.20 | 0.0050 | Note 49 |
| Year N | 41 | 1 | 31.4 | 30.8 | 0 | 100 | 11 | 0 | 0 | 23.1 | 42 | 12.9 | 6.6 | 0.0 | 0.0 | 0.0 | 41 | 6.3 | 0.36 | 0.70 | 0.32 | 0.49 | Note 47 |
| 2 Vol/NH3 | Poultry | YES | 0.6 | 7.7 | NON | 100.00 | WWH | 1.000 | NO | 10.2 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.6 | 0.09 | 0.0125 | 0.09 | 0.0100 | Note 48 |
| N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 10.2 | Meat | 4 | | | | 5.1 | Liquid | 0.0 | 0.26 | 0.0010 | 0.08 | 0.0050 | Note 49 |
| Year N | 41 | 1 | 5.7 | 5.6 | 0 | 100 | 11 | 0 | 0 | 4.2 | 42 | 2.3 | 1.2 | 0.0 | 0.0 | 0.0 | 41 | 1.1 | 0.06 | 0.13 | 0.06 | 0.09 | Note 47 |
| 3 Vol/NH3 | Poultry | YES | 0.1 | 1.4 | NON | 100.00 | WWH | 1.000 | NO | 1.8 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.1 | 0.02 | 0.0125 | 0.02 | 0.0100 | Note 48 |
| N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 1.8 | Meat | 4 | | | | 0.9 | Liquid | 0.0 | 0.05 | 0.0010 | 0.01 | 0.0050 | Note 49 |
| Year N | 41 | 1 | 1.0 | 1.0 | 0 | 100 | 1 | 0 | 0 | 0.8 | 42 | 0.4 | 0.2 | 0.0 | 0.0 | 0.0 | 41 | 0.2 | 0.01 | 0.02 | 0.01 | 0.02 | Note 47 |
| 4 Vol/NH3 | Poultry | YES | 0.0 | 0.3 | NON | 100.00 | SBA | 1.000 | NO | 0.4 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.4 | Meat | 4 | | | | 0.2 | Liquid | 0.0 | 0.01 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year N | 41 | 1 | 0.2 | 0.2 | 0 | 100 | 10 | 0 | 0 | 0.1 | 42 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 41 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 5 Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.1 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.1 | Meat | 4 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year N | 41 | 1 | 0.0 | 0.0 | 0 | 100 | 22 | 1 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 41 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 6 Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.0 | Poultry | 0.84 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.113 | 0.382 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year N | 41 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 41 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year N | 41 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 41 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year N | 41 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 41 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year N | 41 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 41 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.17 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.98 | 1.27 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 3.05 | 2.21 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 3.05 | 2.21 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.17 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.98 | Total including natural | 4.03 | 3.18 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND POULTRY MEAT Note 43
AND CONTINUING WITH SEPARATED POULTRY MANURE TO PRODUCE WINTER WHEAT FOR POULTRY MEAT Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | | 41.8 | 41.8 | 2.05 | 3.16 | 1.59 | 2.09 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | | 23.2 | 23.2 | 0.23 | | 0.23 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0349 | | 0.0229 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | | 35.0 | 35.0 | 0.88 | | 0.26 | | Note 45 |
| | | | TOTAL | | 0.0443 | | 0.0293 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | | | 100.0 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | | 0.0755 | | 0.0499 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 42 | 71.3 | 36.4 | 0.0 | 0.0 | 0.0 | 42 | 34.9 | 1.72 | 2.49 | 1.33 | 1.64 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Poultry | 0.84 | | | | 0.0 | Poultry | 8.7 | 0.11 | 0.0125 | 0.11 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Meat | 4 | | | | 17.5 | Sep | 0.0 | 0.66 | 0.0105 | 0.20 | 0.0050 | Note 49 |
| Year | N | 42 | 1 | 26.2 | 22.3 | 0 | 100 | 11 | 0 | 0 | 16.7 | 42 | 9.3 | 4.7 | 0.0 | 0.0 | 0.0 | 42 | 4.6 | 0.29 | 0.58 | 0.23 | 0.39 | Note 47 |
| 2 | Vol/NH3 | Poultry | YES | 3.9 | 5.6 | NON | 100.00 | WWH | 1.000 | NO | 7.4 | Poultry | 0.67 | | | | 0.0 | Poultry | 1.1 | 0.11 | 0.0125 | 0.11 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 7.4 | Meat | 4 | | | | 3.7 | Sep | 0.0 | 0.18 | 0.0105 | 0.06 | 0.0050 | Note 49 |
| Year | N | 42 | 1 | 3.4 | 2.9 | 0 | 100 | 11 | 0 | 0 | 2.2 | 42 | 1.2 | 0.6 | 0.0 | 0.0 | 0.0 | 42 | 0.6 | 0.04 | 0.08 | 0.03 | 0.05 | Note 47 |
| 3 | Vol/NH3 | Poultry | YES | 0.5 | 0.7 | NON | 100.00 | WWH | 1.000 | NO | 1.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.1 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 1.0 | Meat | 4 | | | | 0.5 | Sep | 0.0 | 0.02 | 0.0105 | 0.01 | 0.0050 | Note 49 |
| Year | N | 42 | 1 | 0.4 | 0.4 | 0 | 100 | 1 | 0 | 0 | 0.3 | 42 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 42 | 0.1 | 0.00 | 0.01 | 0.00 | 0.01 | Note 47 |
| 4 | Vol/NH3 | Poultry | YES | 0.1 | 0.1 | NON | 100.00 | SBA | 1.000 | NO | 0.1 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.1 | Meat | 4 | | | | 0.1 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 42 | 1 | 0.1 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 5 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 42 | 1 | 0.0 | 0.0 | 0 | 100 | 22 | 1 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.0 | Poultry | 0.84 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.113 | 0.382 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 42 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 42 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 42 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |
| Year | N | 42 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.12 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.91 | 1.18 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 3.16 | 2.09 Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 3.16 | 2.09 Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.12 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.91 | Total including natural | 4.07 | 3.00 Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND POULTRY MEAT Note 43
AND CONTINUING WITH POULTRY DEEP LITTER TO PRODUCE WINTER WHEAT FOR POULTRY MEAT Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | | 39.1 | 39.0 | 2.11 | 3.25 | 1.49 | 2.01 Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | | 26.0 | 25.9 | 0.26 | | 0.26 | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0377 | | 0.0233 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | | 35.2 | 35.1 | 0.88 | | 0.26 | Note 45 |
| | | | TOTAL | | 0.0455 | | 0.0282 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | | | 100.3 | 100.0 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | | 0.0830 | | 0.0514 Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 42 | 71.3 | 36.4 | 0.0 | 0.0 | 0.0 | 43 | 34.9 | 1.86 | 2.68 | 1.30 | 1.66 Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Poultry | 0.84 | | | | 0.0 | Poultry | 14.0 | 0.16 | 0.0125 | 0.16 | 0.0100 Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Meat | 4 | | | | 17.5 | Deep | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0050 Note 49 |
| Year | N | 43 | 1 | 21.2 | 17.5 | 0 | 100 | 11 | 0 | 0 | 13.1 | 42 | 5.1 | 2.6 | 0.0 | 0.0 | 0.0 | 43 | 2.5 | 0.23 | 0.52 | 0.17 | 0.33 Note 47 |
| 2 | Vol/NH3 | Poultry | YES | 3.7 | 4.4 | NON | 100.00 | WWH | 1.000 | NO | 8.1 | Poultry | 0.67 | | | | 0.0 | Poultry | 1.0 | 0.09 | 0.0125 | 0.09 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 8.1 | Meat | 4 | | | | 2.9 | Deep | 0.0 | 0.20 | 0.0200 | 0.06 | 0.0050 Note 49 |
| Year | N | 43 | 1 | 1.5 | 1.2 | 0 | 100 | 11 | 0 | 0 | 0.9 | 42 | 0.4 | 0.2 | 0.0 | 0.0 | 0.0 | 43 | 0.2 | 0.02 | 0.04 | 0.01 | 0.02 Note 47 |
| 3 | Vol/NH3 | Poultry | YES | 0.3 | 0.3 | NON | 100.00 | WWH | 1.000 | NO | 0.6 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.1 | 0.01 | 0.0125 | 0.01 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 0.6 | Meat | 4 | | | | 0.2 | Deep | 0.0 | 0.01 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 43 | 1 | 0.1 | 0.1 | 0 | 100 | 1 | 0 | 0 | 0.1 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 4 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 43 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 5 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 43 | 1 | 0.0 | 0.0 | 0 | 100 | 22 | 1 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 6 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.0 | Poultry | 0.84 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.113 | 0.572 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 43 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 7 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 43 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 8 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 43 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 9 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 43 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 10 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.84 | 1.09 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 3.25 | 2.01 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 3.25 | 2.01 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.84 | Total including natural | 4.09 | 2.86 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND POULTRY MEAT Note 43
AND CONTINUING WITH MANURE FROM SCRAPING POULTRY TO PRODUCE WINTER WHEAT FOR POULTRY MEAT Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | 42.4 | 42.4 | 2.83 | 4.20 | 2.49 | 2.94 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | 5.0 | 5.0 | 0.05 | | 0.05 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0396 | 0.0297 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | 52.6 | 52.6 | 1.31 | | 0.39 | | Note 45 |
| | | | TOTAL | | 0.0589 | 0.0412 | TOTAL N AMOUNTS IN KG AND % | | | | | | | 100.0 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | 0.0991 | | 0.0693 | Note 46 |
| Year N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 42 | 71.3 | 36.4 | 0.0 | 0.0 | 0.0 | 44 | 34.9 | 2.14 | 2.82 | 1.89 | 2.12 | Note 47 |
| 1 Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Poultry | 0.84 | | | | 0.0 | Poultry | 0.0 | 0.02 | 0.0125 | 0.02 | 0.0100 | Note 48 |
| N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Meat | 4 | | | | 17.5 | Scrap | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0200 | Note 49 |
| Year N | 44 | 1 | 34.9 | 34.9 | 0 | 100 | 11 | 0 | 0 | 32.5 | 42 | 10.1 | 5.2 | 0.0 | 0.0 | 0.0 | 44 | 5.0 | 0.59 | 1.18 | 0.51 | 0.71 | Note 47 |
| 2 Vol/NH3 | Poultry | YES | 0.0 | 2.4 | NON | 100.00 | WWH | 1.000 | NO | 22.4 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.02 | 0.0125 | 0.02 | 0.0100 | Note 48 |
| N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 22.4 | Meat | 4 | | | | 7.1 | Scrap | 0.0 | 0.56 | 0.0200 | 0.17 | 0.0200 | Note 49 |
| Year N | 44 | 1 | 5.0 | 5.0 | 0 | 100 | 11 | 0 | 0 | 4.6 | 42 | 1.4 | 0.7 | 0.0 | 0.0 | 0.0 | 44 | 0.7 | 0.08 | 0.17 | 0.07 | 0.10 | Note 47 |
| 3 Vol/NH3 | Poultry | YES | 0.0 | 0.3 | NON | 100.00 | WWH | 1.000 | NO | 3.2 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 3.2 | Meat | 4 | | | | 1.0 | Scrap | 0.0 | 0.08 | 0.0200 | 0.02 | 0.0200 | Note 49 |
| Year N | 44 | 1 | 0.7 | 0.7 | 0 | 100 | 1 | 0 | 0 | 0.7 | 42 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 44 | 0.1 | 0.01 | 0.02 | 0.01 | 0.01 | Note 47 |
| 4 Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.5 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.711 | 0.0 | 0.5 | Meat | 4 | | | | 0.1 | Scrap | 0.0 | 0.01 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year N | 44 | 1 | 0.1 | 0.1 | 0 | 100 | 10 | 0 | 0 | 0.1 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 44 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 5 Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.1 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.712 | 0.0 | 0.1 | Meat | 4 | | | | 0.0 | Scrap | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year N | 44 | 1 | 0.0 | 0.0 | 0 | 100 | 22 | 1 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 44 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 6 Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.0 | Poultry | 0.84 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.113 | 0.655 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Scrap | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year N | 44 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 44 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Scrap | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year N | 44 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 44 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Scrap | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year N | 44 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 44 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.711 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Scrap | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |
| Year N | 44 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 42 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 44 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.712 | 0.0 | 0.0 | Meat | 4 | | | | 0.0 | Scrap | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.11 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.90 | 1.16 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 4.20 | 2.94 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 4.20 | 2.94 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.11 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.90 | Total including natural | 5.09 | 3.83 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND POULTRY EGGS Note 43
AND CONTINUING WITH LIQUID POULTRY MANURE TO PRODUCE WINTER WHEAT FOR POULTRY EGGS Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | | 23.8 | 23.8 | 2.26 | 3.75 | 2.16 | 2.80 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | 27.6 | 27.6 | 0.28 | | 0.28 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0313 | | 0.0241 | | | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | 48.6 | 48.6 | 1.22 | | 0.36 | | Note 45 |
| | | | TOTAL | | 0.0527 | | 0.0393 | | | | TOTAL N AMOUNTS IN KG AND % | | | | | | | 100.0 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | | 0.1577 | | 0.1178 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 43 | 71.3 | 17.2 | 0.0 | 0.0 | 0.0 | 41 | 54.1 | 1.49 | 2.23 | 1.44 | 1.71 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Poultry | 0.84 | | | | 0.0 | Poultry | 5.4 | 0.08 | 0.0125 | 0.08 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Eggs | 4 | | | | 17.5 | Liquid | 0.0 | 0.66 | 0.0010 | 0.20 | 0.0050 | Note 49 |
| Year | N | 41 | 1 | 48.7 | 47.7 | 0 | 100 | 11 | 0 | 0 | 35.8 | 43 | 19.9 | 4.8 | 0.0 | 0.0 | 0.0 | 41 | 15.1 | 0.56 | 1.10 | 0.52 | 0.79 | Note 47 |
| 2 | Vol/NH3 | Poultry | YES | 1.0 | 11.9 | NON | 100.00 | WWH | 1.000 | NO | 15.9 | Poultry | 0.67 | | | | 0.0 | Poultry | 1.5 | 0.14 | 0.0125 | 0.14 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 15.9 | Eggs | 4 | | | | 7.8 | Liquid | 0.0 | 0.40 | 0.0010 | 0.12 | 0.0050 | Note 49 |
| Year | N | 41 | 1 | 13.6 | 13.3 | 0 | 100 | 11 | 0 | 0 | 10.0 | 43 | 5.6 | 1.3 | 0.0 | 0.0 | 0.0 | 41 | 4.2 | 0.16 | 0.31 | 0.15 | 0.22 | Note 47 |
| 3 | Vol/NH3 | Poultry | YES | 0.3 | 3.3 | NON | 100.00 | WWH | 1.000 | NO | 4.4 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.4 | 0.04 | 0.0125 | 0.04 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 4.4 | Eggs | 4 | | | | 2.2 | Liquid | 0.0 | 0.11 | 0.0010 | 0.03 | 0.0050 | Note 49 |
| Year | N | 41 | 1 | 3.8 | 3.7 | 0 | 100 | 1 | 0 | 0 | 2.8 | 43 | 1.4 | 0.3 | 0.0 | 0.0 | 0.0 | 41 | 1.1 | 0.04 | 0.09 | 0.04 | 0.06 | Note 47 |
| 4 | Vol/NH3 | Poultry | YES | 0.1 | 0.9 | NON | 100.00 | SBA | 1.000 | NO | 1.4 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.1 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 1.4 | Eggs | 4 | | | | 0.6 | Liquid | 0.0 | 0.03 | 0.0010 | 0.01 | 0.0050 | Note 49 |
| Year | N | 41 | 1 | 1.0 | 1.0 | 0 | 100 | 10 | 0 | 0 | 0.7 | 43 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 41 | 0.3 | 0.01 | 0.02 | 0.01 | 0.02 | Note 47 |
| 5 | Vol/NH3 | Poultry | YES | 0.0 | 0.2 | NON | 100.00 | WBA | 1.000 | NO | 0.4 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.4 | Eggs | 4 | | | | 0.1 | Liquid | 0.0 | 0.01 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 41 | 1 | 0.3 | 0.3 | 0 | 100 | 22 | 1 | 0 | 0.2 | 43 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 41 | 0.1 | 0.00 | 0.01 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | Poultry | YES | 0.0 | 0.1 | NON | 100.00 | WRS | 1.113 | NO | 0.1 | Poultry | 0.84 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.113 | 0.382 | 0.0 | 0.1 | Eggs | 4 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 41 | 1 | 0.1 | 0.1 | 0 | 100 | 11 | 0 | 0 | 0.1 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 41 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 41 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 41 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 41 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 41 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 41 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 41 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.26 | 0.07 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.14 | 1.47 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 3.75 | 2.80 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 3.75 | 2.80 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.26 | 0.07 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.14 Total including natural | 4.89 | 3.94 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND POULTRY EGGS Note 43
AND CONTINUING WITH SEPARATED POULTRY MANURE TO PRODUCE WINTER WHEAT FOR POULTRY EGGS Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | 21.5 | 21.5 | 2.47 | 3.87 | 1.86 | 2.55 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | 37.6 | 37.6 | 0.38 | | 0.38 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0377 | 0.0246 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | 40.9 | 40.9 | 1.02 | | 0.31 | | Note 45 |
| | | | TOTAL | | 0.0542 | 0.0357 | TOTAL N AMOUNTS IN KG AND % | | | | | | | 100.0 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | 0.1797 | | 0.1183 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 43 | 71.3 | 17.2 | 0.0 | 0.0 | 0.0 | 42 | 54.1 | 1.87 | 2.69 | 1.40 | 1.76 Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Poultry | 0.84 | | | | 0.0 | Poultry | 13.5 | 0.16 | 0.0125 | 0.16 | 0.0100 Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Eggs | 4 | | | | 17.5 | Sep | 0.0 | 0.66 | 0.0105 | 0.20 | 0.0050 Note 49 |
| Year | N | 42 | 1 | 40.6 | 34.5 | 0 | 100 | 11 | 0 | 0 | 25.9 | 43 | 14.4 | 3.5 | 0.0 | 0.0 | 0.0 | 42 | 10.9 | 0.48 | 0.94 | 0.37 | 0.63 Note 47 |
| 2 | Vol/NH3 | Poultry | YES | 6.1 | 8.6 | NON | 100.00 | WWH | 1.000 | NO | 11.5 | Poultry | 0.67 | | | | 0.0 | Poultry | 2.7 | 0.17 | 0.0125 | 0.17 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 11.5 | Eggs | 4 | | | | 5.7 | Sep | 0.0 | 0.29 | 0.0105 | 0.09 | 0.0050 Note 49 |
| Year | N | 42 | 1 | 8.2 | 7.0 | 0 | 100 | 11 | 0 | 0 | 5.2 | 43 | 2.9 | 0.7 | 0.0 | 0.0 | 0.0 | 42 | 2.2 | 0.10 | 0.19 | 0.07 | 0.13 Note 47 |
| 3 | Vol/NH3 | Poultry | YES | 1.2 | 1.7 | NON | 100.00 | WWH | 1.000 | NO | 2.3 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.6 | 0.04 | 0.0125 | 0.04 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 2.3 | Eggs | 4 | | | | 1.1 | Sep | 0.0 | 0.06 | 0.0105 | 0.02 | 0.0050 Note 49 |
| Year | N | 42 | 1 | 1.7 | 1.4 | 0 | 100 | 1 | 0 | 0 | 1.1 | 43 | 0.5 | 0.1 | 0.0 | 0.0 | 0.0 | 42 | 0.4 | 0.02 | 0.04 | 0.01 | 0.03 Note 47 |
| 4 | Vol/NH3 | Poultry | YES | 0.2 | 0.4 | NON | 100.00 | SBA | 1.000 | NO | 0.5 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.1 | 0.01 | 0.0125 | 0.01 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.5 | Eggs | 4 | | | | 0.2 | Sep | 0.0 | 0.01 | 0.0105 | 0.00 | 0.0050 Note 49 |
| Year | N | 42 | 1 | 0.3 | 0.3 | 0 | 100 | 10 | 0 | 0 | 0.2 | 43 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 42 | 0.1 | 0.00 | 0.01 | 0.00 | 0.00 Note 47 |
| 5 | Vol/NH3 | Poultry | YES | 0.0 | 0.1 | NON | 100.00 | WBA | 1.000 | NO | 0.1 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.1 | Eggs | 4 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 Note 49 |
| Year | N | 42 | 1 | 0.1 | 0.0 | 0 | 100 | 22 | 1 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 6 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.0 | Poultry | 0.84 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.113 | 0.382 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 Note 49 |
| Year | N | 42 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 7 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 Note 49 |
| Year | N | 42 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 8 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 Note 49 |
| Year | N | 42 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 9 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 Note 49 |
| Year | N | 42 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 10 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Sep | 0.867 | 1.000 | | ORG | 1.00 | 1.000 | 0.483 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Sep | 0.0 | 0.00 | 0.0105 | 0.00 | 0.0050 Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.19 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.01 | 1.31 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 3.87 | 2.55 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 3.87 | 2.55 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.19 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.01 | Total including natural | 4.87 | 3.55 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND POULTRY EGGS Note 43
AND CONTINUING WITH POULTRY DEEP LITTER TO PRODUCE WINTER WHEAT FOR POULTRY EGGS Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | 19.3 | 19.2 | 2.52 | 3.94 | 1.67 | 2.38 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | 40.6 | 40.4 | 0.41 | | 0.41 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0420 | | 0.0252 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | 40.6 | 40.4 | 1.01 | | 0.30 | | Note 45 |
| | | | TOTAL | | 0.0552 | | 0.0334 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | | 100.5 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.2040 | | 0.1233 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 43 | 71.3 | 17.2 | 0.0 | 0.0 | 0.0 | 43 | 54.1 | 2.09 | 2.99 | 1.36 | 1.80 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Poultry | 0.84 | | | | 0.0 | Poultry | 21.6 | 0.24 | 0.0125 | 0.24 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Eggs | 4 | | | | 17.5 | Deep | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0050 | Note 49 |
| Year | N | 43 | 1 | 32.9 | 27.1 | 0 | 100 | 11 | 0 | 0 | 20.3 | 43 | 7.8 | 1.9 | 0.0 | 0.0 | 0.0 | 43 | 6.0 | 0.38 | 0.84 | 0.28 | 0.52 | Note 47 |
| 2 | Vol/NH3 | Poultry | YES | 5.8 | 6.8 | NON | 100.00 | WWH | 1.000 | NO | 12.5 | Poultry | 0.67 | | | | 0.0 | Poultry | 2.4 | 0.15 | 0.0125 | 0.15 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 12.5 | Eggs | 4 | | | | 4.4 | Deep | 0.0 | 0.31 | 0.0200 | 0.09 | 0.0050 | Note 49 |
| Year | N | 43 | 1 | 3.6 | 3.0 | 0 | 100 | 11 | 0 | 0 | 2.2 | 43 | 0.9 | 0.2 | 0.0 | 0.0 | 0.0 | 43 | 0.7 | 0.04 | 0.09 | 0.03 | 0.06 | Note 47 |
| 3 | Vol/NH3 | Poultry | YES | 0.6 | 0.7 | NON | 100.00 | WWH | 1.000 | NO | 1.4 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.3 | 0.02 | 0.0125 | 0.02 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 1.4 | Eggs | 4 | | | | 0.5 | Deep | 0.0 | 0.03 | 0.0200 | 0.01 | 0.0050 | Note 49 |
| Year | N | 43 | 1 | 0.4 | 0.3 | 0 | 100 | 1 | 0 | 0 | 0.2 | 43 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.1 | 0.00 | 0.01 | 0.00 | 0.01 | Note 47 |
| 4 | Vol/NH3 | Poultry | YES | 0.1 | 0.1 | NON | 100.00 | SBA | 1.000 | NO | 0.2 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.2 | Eggs | 4 | | | | 0.1 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 43 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 5 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 43 | 1 | 0.0 | 0.0 | 0 | 100 | 22 | 1 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.0 | Poultry | 0.84 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.113 | 0.572 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 43 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 43 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 43 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 43 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.013 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.10 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.89 | 1.15 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 3.94 | 2.38 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 3.94 | 2.38 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.10 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.89 | Total including natural | 4.82 | 3.27 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND POULTRY EGGS Note 43
AND CONTINUING WITH MANURE FROM SCRAPING POULTRY TO PRODUCE WINTER WHEAT FOR POULTRY EGGS Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | | | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | 22.0 | 22.0 | | | | 3.81 | 5.65 | 3.40 | 4.00 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | | | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | 7.0 | 7.0 | | | | 0.07 | | 0.07 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0450 | | 0.0351 | | | | | TOTAL N AMOUNTS IN KG AND % LEACHED | | 71.0 | 71.0 | | | | 1.77 | | 0.53 | | Note 45 |
| | | | TOTAL | | 0.0793 | | 0.0562 | | | | | TOTAL N AMOUNTS IN KG AND % | | 100.0 | 100.0 | | | | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.2569 | | 0.1820 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 43 | 71.3 | 17.2 | 0.0 | 0.0 | 0.0 | 44 | 54.1 | 2.52 | 3.21 | 2.28 | 2.50 Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Poultry | 0.84 | | | | 0.0 | Poultry | 0.0 | 0.02 | 0.0125 | 0.02 | 0.0100 Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Eggs | 4 | | | | 17.5 | Scrap | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0200 Note 49 |
| Year | N | 44 | 1 | 54.1 | 54.1 | 0 | 100 | 11 | 0 | 0 | 50.3 | 43 | 15.6 | 3.8 | 0.0 | 0.0 | 0.0 | 44 | 11.9 | 1.00 | 1.91 | 0.88 | 1.18 Note 47 |
| 2 | Vol/NH3 | Poultry | YES | 0.0 | 3.8 | NON | 100.00 | WWH | 1.000 | NO | 34.7 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.04 | 0.0125 | 0.04 | 0.0100 Note 48 |
| | N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 34.7 | Eggs | 4 | | | | 11.0 | Scrap | 0.0 | 0.87 | 0.0200 | 0.26 | 0.0200 Note 49 |
| Year | N | 44 | 1 | 11.9 | 11.9 | 0 | 100 | 11 | 0 | 0 | 11.0 | 43 | 3.4 | 0.8 | 0.0 | 0.0 | 0.0 | 44 | 2.6 | 0.22 | 0.42 | 0.19 | 0.26 Note 47 |
| 3 | Vol/NH3 | Poultry | YES | 0.0 | 0.8 | NON | 100.00 | WWH | 1.000 | NO | 7.6 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.01 | 0.0125 | 0.01 | 0.0100 Note 48 |
| | N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 7.6 | Eggs | 4 | | | | 2.4 | Scrap | 0.0 | 0.19 | 0.0200 | 0.06 | 0.0200 Note 49 |
| Year | N | 44 | 1 | 2.6 | 2.6 | 0 | 100 | 1 | 0 | 0 | 2.4 | 43 | 0.7 | 0.2 | 0.0 | 0.0 | 0.0 | 44 | 0.5 | 0.05 | 0.09 | 0.04 | 0.06 Note 47 |
| 4 | Vol/NH3 | Poultry | YES | 0.0 | 0.2 | NON | 100.00 | SBA | 1.000 | NO | 1.7 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.711 | 0.0 | 1.7 | Eggs | 4 | | | | 0.5 | Scrap | 0.0 | 0.04 | 0.0200 | 0.01 | 0.0200 Note 49 |
| Year | N | 44 | 1 | 0.5 | 0.5 | 0 | 100 | 10 | 0 | 0 | 0.5 | 43 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 44 | 0.1 | 0.01 | 0.02 | 0.01 | 0.01 Note 47 |
| 5 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.4 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.712 | 0.0 | 0.4 | Eggs | 4 | | | | 0.1 | Scrap | 0.0 | 0.01 | 0.0200 | 0.00 | 0.0200 Note 49 |
| Year | N | 44 | 1 | 0.1 | 0.1 | 0 | 100 | 22 | 1 | 0 | 0.1 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 44 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 6 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.1 | Poultry | 0.84 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.113 | 0.655 | 0.0 | 0.1 | Eggs | 4 | | | | 0.0 | Scrap | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 Note 49 |
| Year | N | 44 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 44 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 7 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Scrap | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 Note 49 |
| Year | N | 44 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 44 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 8 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Poultry | 0.67 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Scrap | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 Note 49 |
| Year | N | 44 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 44 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 9 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Poultry | 0.65 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.711 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Scrap | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 Note 49 |
| Year | N | 44 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 43 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 44 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 10 | Vol/NH3 | Poultry | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Poultry | 0.66 | | | | 0.0 | Poultry | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Scrap | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.712 | 0.0 | 0.0 | Eggs | 4 | | | | 0.0 | Scrap | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0200 Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.16 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.98 | 1.27 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 5.65 | 4.00 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 5.65 | 4.00 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.16 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.98 | Total including natural | 6.63 | 4.99 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND SHEEP MILK/MUTTON Note 43
AND CONTINUING WITH SHEEP DEEP LITTER TO PRODUCE WINTER WHEAT FOR SHEEP MILK/MUTTON Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | | 15.0 | 13.3 | 4.34 | 6.54 | 2.72 | 3.49 Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | | 15.8 | 14.0 | 0.16 | | 0.16 | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0457 | | 0.0248 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | | 81.7 | 72.6 | 2.04 | | 0.61 | Note 45 |
| | | | TOTAL | | 0.0918 | | 0.0489 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | | | 112.5 | 100.0 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.4363 | | 0.2327 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 51 | 71.3 | 10.1 | 0.0 | 0.0 | 0.0 | 53 | 61.2 | 2.48 | 3.26 | 1.46 | 1.77 Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Sheep | 0.84 | | | | 0.0 | Sheep | 9.2 | 0.11 | 0.0125 | 0.11 | 0.0100 Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Milk/mutt | 5 | | | | 17.5 | Deep | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0050 Note 49 |
| Year | N | 53 | 1 | 60.4 | 60.4 | 0 | 100 | 11 | 0 | 0 | 60.4 | 51 | 23.3 | 3.3 | 0.0 | 0.0 | 0.0 | 53 | 20.0 | 1.26 | 2.22 | 0.85 | 1.16 Note 47 |
| 2 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 37.1 | Sheep | 0.67 | | | | 0.0 | Sheep | 3.0 | 0.03 | 0.0125 | 0.03 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 37.1 | Milk/mutt | 5 | | | | 13.2 | Deep | 0.0 | 0.93 | 0.0200 | 0.28 | 0.0050 Note 49 |
| Year | N | 53 | 1 | 19.7 | 19.7 | 0 | 100 | 11 | 0 | 0 | 19.7 | 51 | 7.6 | 1.1 | 0.0 | 0.0 | 0.0 | 53 | 6.5 | 0.41 | 0.72 | 0.28 | 0.38 Note 47 |
| 3 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 12.1 | Sheep | 0.67 | | | | 0.0 | Sheep | 1.0 | 0.01 | 0.0125 | 0.01 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 12.1 | Milk/mutt | 5 | | | | 4.3 | Deep | 0.0 | 0.30 | 0.0200 | 0.09 | 0.0050 Note 49 |
| Year | N | 53 | 1 | 6.5 | 6.5 | 0 | 100 | 1 | 0 | 0 | 6.5 | 51 | 2.3 | 0.3 | 0.0 | 0.0 | 0.0 | 53 | 2.0 | 0.13 | 0.24 | 0.09 | 0.12 Note 47 |
| 4 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 4.1 | Sheep | 0.65 | | | | 0.0 | Sheep | 0.3 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 4.1 | Milk/mutt | 5 | | | | 1.3 | Deep | 0.0 | 0.10 | 0.0200 | 0.03 | 0.0050 Note 49 |
| Year | N | 53 | 1 | 2.0 | 2.0 | 0 | 100 | 10 | 0 | 0 | 2.0 | 51 | 0.7 | 0.1 | 0.0 | 0.0 | 0.0 | 53 | 0.6 | 0.04 | 0.07 | 0.03 | 0.04 Note 47 |
| 5 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 1.3 | Sheep | 0.66 | | | | 0.0 | Sheep | 0.1 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 1.3 | Milk/mutt | 5 | | | | 0.4 | Deep | 0.0 | 0.03 | 0.0200 | 0.01 | 0.0050 Note 49 |
| Year | N | 53 | 1 | 0.6 | 0.6 | 0 | 100 | 22 | 1 | 0 | 0.6 | 51 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 53 | 0.2 | 0.01 | 0.02 | 0.01 | 0.01 Note 47 |
| 6 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.3 | Sheep | 0.84 | | | | 0.0 | Sheep | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.113 | 0.572 | 0.0 | 0.3 | Milk/mutt | 5 | | | | 0.1 | Deep | 0.0 | 0.01 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 53 | 1 | 0.2 | 0.2 | 0 | 100 | 11 | 0 | 0 | 0.2 | 51 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 53 | 0.1 | 0.00 | 0.01 | 0.00 | 0.00 Note 47 |
| 7 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.1 | Sheep | 0.67 | | | | 0.0 | Sheep | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 0.1 | Milk/mutt | 5 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 53 | 1 | 0.1 | 0.1 | 0 | 100 | 11 | 0 | 0 | 0.1 | 51 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 53 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 8 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Sheep | 0.67 | | | | 0.0 | Sheep | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 0.0 | Milk/mutt | 5 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 53 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 51 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 53 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 9 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Sheep | 0.65 | | | | 0.0 | Sheep | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Milk/mutt | 5 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |
| Year | N | 53 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 51 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 53 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 10 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Sheep | 0.66 | | | | 0.0 | Sheep | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Milk/mutt | 5 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.23 | 0.07 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.11 | 1.44 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 6.54 | 3.49 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 6.54 | 3.49 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.23 | 0.07 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.11 Total including natural | 7.66 | 4.60 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND SHEEP MILK/MUTTON Note 43
AND CONTINUING WITH MANURE FROM GRAZING SHEEP TO PRODUCE WINTER WHEAT FOR SHEEP MILK/MUTTON Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Amounts Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Fodder: Uses #21-61 Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | N2O-N emission IPCC 1996 Total | N2O-N emission IPCC 2006 Each | N2O-N emission IPCC 2006 Total | Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | N | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | | 13.4 | 13.4 | 4.22 | 6.26 | 2.16 | 2.83 | Note 45 |
| Year | N NH3 | | ACCORDING TO | | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | | | | 7.9 | 7.9 | 0.08 | | 0.08 | | Note 45 |
| 1-10 | N leach | | FIRST YEAR | | 0.0470 | 0.0199 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | | | | 78.7 | 78.7 | 1.97 | | 0.59 | | Note 45 |
| | | | TOTAL | | 0.0878 | 0.0396 | TOTAL N AMOUNTS IN KG AND % | | | | | | | | | | | 100.0 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | | 0.4656 | | 0.2102 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 51 | 71.3 | 10.1 | 0.0 | 0.0 | 0.0 | 54 | 61.2 | 2.66 | 3.35 | 1.20 | 1.42 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Sheep | 0.84 | | | | 0.0 | Sheep | 0.0 | 0.02 | 0.0125 | 0.02 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Milk/mutt | 5 | | | | 17.5 | Graz | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0000 | Note 49 |
| Year | N | 54 | 1 | 61.2 | 61.2 | 0 | 100 | 11 | 0 | 0 | 56.9 | 51 | 17.7 | 2.5 | 0.0 | 0.0 | 0.0 | 54 | 15.2 | 1.17 | 2.19 | 0.72 | 1.06 | Note 47 |
| 2 | Vol/NH3 | Sheep | YES | 0.0 | 4.3 | NON | 100.00 | WWH | 1.000 | NO | 39.2 | Sheep | 0.67 | | | | 0.0 | Sheep | 0.0 | 0.04 | 0.0125 | 0.04 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 39.2 | Milk/mutt | 5 | | | | 12.4 | Graz | 0.0 | 0.98 | 0.0200 | 0.29 | 0.0000 | Note 49 |
| Year | N | 54 | 1 | 15.2 | 15.2 | 0 | 100 | 11 | 0 | 0 | 14.1 | 51 | 4.4 | 0.6 | 0.0 | 0.0 | 0.0 | 54 | 3.8 | 0.29 | 0.54 | 0.18 | 0.26 | Note 47 |
| 3 | Vol/NH3 | Sheep | YES | 0.0 | 1.1 | NON | 100.00 | WWH | 1.000 | NO | 9.7 | Sheep | 0.67 | | | | 0.0 | Sheep | 0.0 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 9.7 | Milk/mutt | 5 | | | | 3.1 | Graz | 0.0 | 0.24 | 0.0200 | 0.07 | 0.0000 | Note 49 |
| Year | N | 54 | 1 | 3.8 | 3.8 | 0 | 100 | 1 | 0 | 0 | 3.5 | 51 | 1.0 | 0.1 | 0.0 | 0.0 | 0.0 | 54 | 0.9 | 0.07 | 0.13 | 0.04 | 0.07 | Note 47 |
| 4 | Vol/NH3 | Sheep | YES | 0.0 | 0.3 | NON | 100.00 | SBA | 1.000 | NO | 2.5 | Sheep | 0.65 | | | | 0.0 | Sheep | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.711 | 0.0 | 2.5 | Milk/mutt | 5 | | | | 0.7 | Graz | 0.0 | 0.06 | 0.0200 | 0.02 | 0.0000 | Note 49 |
| Year | N | 54 | 1 | 0.9 | 0.9 | 0 | 100 | 10 | 0 | 0 | 0.8 | 51 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 54 | 0.2 | 0.02 | 0.03 | 0.01 | 0.01 | Note 47 |
| 5 | Vol/NH3 | Sheep | YES | 0.0 | 0.1 | NON | 100.00 | WBA | 1.000 | NO | 0.6 | Sheep | 0.66 | | | | 0.0 | Sheep | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.712 | 0.0 | 0.6 | Milk/mutt | 5 | | | | 0.2 | Graz | 0.0 | 0.01 | 0.0200 | 0.00 | 0.0000 | Note 49 |
| Year | N | 54 | 1 | 0.2 | 0.2 | 0 | 100 | 22 | 1 | 0 | 0.2 | 51 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 54 | 0.1 | 0.00 | 0.01 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.1 | Sheep | 0.84 | | | | 0.0 | Sheep | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.113 | 0.655 | 0.0 | 0.1 | Milk/mutt | 5 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0000 | Note 49 |
| Year | N | 54 | 1 | 0.1 | 0.1 | 0 | 100 | 11 | 0 | 0 | 0.1 | 51 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 54 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Sheep | 0.67 | | | | 0.0 | Sheep | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 0.0 | Milk/mutt | 5 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0000 | Note 49 |
| Year | N | 54 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 51 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 54 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Sheep | 0.67 | | | | 0.0 | Sheep | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 0.0 | Milk/mutt | 5 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0000 | Note 49 |
| Year | N | 54 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 51 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 54 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Sheep | 0.65 | | | | 0.0 | Sheep | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.711 | 0.0 | 0.0 | Milk/mutt | 5 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0000 | Note 49 |
| Year | N | 54 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 51 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 54 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Sheep | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Sheep | 0.66 | | | | 0.0 | Sheep | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.712 | 0.0 | 0.0 | Milk/mutt | 5 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0000 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.18 | 0.05 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.02 | 1.32 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 6.26 | 2.83 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 6.26 | 2.83 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.18 | 0.05 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.02 | Total including natural | 7.28 | 3.85 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND GOAT MILK/MEAT Note 43
AND CONTINUING WITH GOAT DEEP LITTER TO PRODUCE WINTER WHEAT FOR GOAT MILK/MEAT Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | 8.8 | 7.9 | 3.63 | 5.54 | 2.21 | 3.09 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | 44.1 | 39.6 | 0.44 | | 0.44 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0465 | | 0.0251 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | 58.5 | 52.5 | 1.46 | | 0.44 | | Note 45 |
| | | | TOTAL | | 0.0777 | | 0.0433 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | | 111.4 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.6320 | | 0.3524 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 61 | 71.3 | 6.8 | 0.0 | 0.0 | 0.0 | 63 | 64.4 | 2.54 | 3.32 | 1.47 | 1.79 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Goat | 0.84 | | | | 0.0 | Goat | 9.7 | 0.12 | 0.0125 | 0.12 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Milk/meat | 6 | | | | 17.5 | Deep | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0050 | Note 49 |
| Year | N | 63 | 1 | 63.7 | 54.1 | 0 | 100 | 11 | 0 | 0 | 40.6 | 61 | 15.6 | 1.5 | 0.0 | 0.0 | 0.0 | 63 | 14.1 | 0.86 | 1.73 | 0.58 | 1.02 | Note 47 |
| 2 | Vol/NH3 | Goat | YES | 9.5 | 13.5 | NON | 100.00 | WWH | 1.000 | NO | 24.9 | Goat | 0.67 | | | | 0.0 | Goat | 2.1 | 0.25 | 0.0125 | 0.25 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 24.9 | Milk/meat | 6 | | | | 8.9 | Deep | 0.0 | 0.62 | 0.0200 | 0.19 | 0.0050 | Note 49 |
| Year | N | 63 | 1 | 14.0 | 11.9 | 0 | 100 | 11 | 0 | 0 | 8.9 | 61 | 3.4 | 0.3 | 0.0 | 0.0 | 0.0 | 63 | 3.1 | 0.19 | 0.38 | 0.13 | 0.22 | Note 47 |
| 3 | Vol/NH3 | Goat | YES | 2.1 | 3.0 | NON | 100.00 | WWH | 1.000 | NO | 5.5 | Goat | 0.67 | | | | 0.0 | Goat | 0.5 | 0.06 | 0.0125 | 0.06 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 5.5 | Milk/meat | 6 | | | | 1.9 | Deep | 0.0 | 0.14 | 0.0200 | 0.04 | 0.0050 | Note 49 |
| Year | N | 63 | 1 | 3.1 | 2.6 | 0 | 100 | 1 | 0 | 0 | 2.0 | 61 | 0.7 | 0.1 | 0.0 | 0.0 | 0.0 | 63 | 0.6 | 0.04 | 0.08 | 0.03 | 0.05 | Note 47 |
| 4 | Vol/NH3 | Goat | YES | 0.5 | 0.7 | NON | 100.00 | SBA | 1.000 | NO | 1.3 | Goat | 0.65 | | | | 0.0 | Goat | 0.1 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 1.3 | Milk/meat | 6 | | | | 0.4 | Deep | 0.0 | 0.03 | 0.0200 | 0.01 | 0.0050 | Note 49 |
| Year | N | 63 | 1 | 0.6 | 0.5 | 0 | 100 | 10 | 0 | 0 | 0.4 | 61 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 63 | 0.1 | 0.01 | 0.02 | 0.01 | 0.01 | Note 47 |
| 5 | Vol/NH3 | Goat | YES | 0.1 | 0.1 | NON | 100.00 | WBA | 1.000 | NO | 0.3 | Goat | 0.66 | | | | 0.0 | Goat | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.3 | Milk/meat | 6 | | | | 0.1 | Deep | 0.0 | 0.01 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 63 | 1 | 0.1 | 0.1 | 0 | 100 | 22 | 1 | 0 | 0.1 | 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 63 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | Goat | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.0 | Goat | 0.84 | | | | 0.0 | Goat | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.113 | 0.572 | 0.0 | 0.0 | Milk/meat | 6 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 63 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 63 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Goat | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Goat | 0.67 | | | | 0.0 | Goat | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 0.0 | Milk/meat | 6 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 63 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 63 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Goat | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Goat | 0.67 | | | | 0.0 | Goat | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.614 | 0.0 | 0.0 | Milk/meat | 6 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 63 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 63 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Goat | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Goat | 0.65 | | | | 0.0 | Goat | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Milk/meat | 6 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |
| Year | N | 63 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 63 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Goat | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Goat | 0.66 | | | | 0.0 | Goat | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Deep | 0.600 | 1.162 | | ORG | 1.00 | 1.000 | 0.642 | 0.0 | 0.0 | Milk/meat | 6 | | | | 0.0 | Deep | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.20 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.03 | 1.34 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 5.54 | 3.09 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 5.54 | 3.09 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.20 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.03 | Total including natural | 6.57 | 4.12 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR OIL AND GOAT MILK/MEAT Note 43
AND CONTINUING WITH MANURE FROM GRAZING GOATS TO PRODUCE WINTER WHEAT FOR GOAT MILK/MEAT Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | 9.3 | 9.3 | 4.42 | 6.56 | 3.10 | 3.80 | Note 45 |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | 8.3 | 8.3 | 0.08 | | 0.08 | | Note 45 |
| 1-10 N leach | | | FIRST YEAR | | 0.0479 | | 0.0289 | | | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | 82.4 | 82.4 | 2.06 | | 0.62 | | Note 45 |
| | | | TOTAL | | 0.0920 | | 0.0533 | | | | TOTAL N AMOUNTS IN KG AND % | | | | | | 100.0 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.7090 | | 0.4106 | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 22 | 1 | 0 | 97.8 | 61 | 71.3 | 6.8 | 0.0 | 0.0 | 0.0 | 64 | 64.4 | 2.73 | 3.41 | 1.84 | 2.06 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WRS | 1.113 | NO | 26.5 | Goat | 0.84 | | | | 0.0 | Goat | 0.0 | 0.02 | 0.0125 | 0.02 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.113 | 0.271 | 0.0 | 26.5 | Milk/meat | 6 | | | | 17.5 | Graz | 0.0 | 0.66 | 0.0200 | 0.20 | 0.0100 | Note 49 |
| Year | N | 64 | 1 | 64.4 | 64.4 | 0 | 100 | 11 | 0 | 0 | 59.9 | 61 | 18.6 | 1.8 | 0.0 | 0.0 | 0.0 | 64 | 16.8 | 1.25 | 2.33 | 0.93 | 1.29 | Note 47 |
| 2 | Vol/NH3 | Goat | YES | 0.0 | 4.5 | NON | 100.00 | WWH | 1.000 | NO | 41.3 | Goat | 0.67 | | | | 0.0 | Goat | 0.0 | 0.05 | 0.0125 | 0.05 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 41.3 | Milk/meat | 6 | | | | 13.1 | Graz | 0.0 | 1.03 | 0.0200 | 0.31 | 0.0100 | Note 49 |
| Year | N | 64 | 1 | 16.8 | 16.8 | 0 | 100 | 11 | 0 | 0 | 15.7 | 61 | 4.9 | 0.5 | 0.0 | 0.0 | 0.0 | 64 | 4.4 | 0.33 | 0.61 | 0.24 | 0.34 | Note 47 |
| 3 | Vol/NH3 | Goat | YES | 0.0 | 1.2 | NON | 100.00 | WWH | 1.000 | NO | 10.8 | Goat | 0.67 | | | | 0.0 | Goat | 0.0 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 10.8 | Milk/meat | 6 | | | | 3.4 | Graz | 0.0 | 0.27 | 0.0200 | 0.08 | 0.0100 | Note 49 |
| Year | N | 64 | 1 | 4.4 | 4.4 | 0 | 100 | 1 | 0 | 0 | 4.1 | 61 | 1.2 | 0.1 | 0.0 | 0.0 | 0.0 | 64 | 1.1 | 0.08 | 0.16 | 0.06 | 0.09 | Note 47 |
| 4 | Vol/NH3 | Goat | YES | 0.0 | 0.3 | NON | 100.00 | SBA | 1.000 | NO | 2.9 | Goat | 0.65 | | | | 0.0 | Goat | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.711 | 0.0 | 2.9 | Milk/meat | 6 | | | | 0.8 | Graz | 0.0 | 0.07 | 0.0200 | 0.02 | 0.0100 | Note 49 |
| Year | N | 64 | 1 | 1.1 | 1.1 | 0 | 100 | 10 | 0 | 0 | 1.0 | 61 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 64 | 0.3 | 0.02 | 0.04 | 0.01 | 0.02 | Note 47 |
| 5 | Vol/NH3 | Goat | YES | 0.0 | 0.1 | NON | 100.00 | WBA | 1.000 | NO | 0.7 | Goat | 0.66 | | | | 0.0 | Goat | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.712 | 0.0 | 0.7 | Milk/meat | 6 | | | | 0.2 | Graz | 0.0 | 0.02 | 0.0200 | 0.01 | 0.0100 | Note 49 |
| Year | N | 64 | 1 | 0.3 | 0.3 | 0 | 100 | 22 | 1 | 0 | 0.2 | 61 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 64 | 0.1 | 0.01 | 0.01 | 0.00 | 0.01 | Note 47 |
| 6 | Vol/NH3 | Goat | YES | 0.0 | 0.0 | NON | 100.00 | WRS | 1.113 | NO | 0.2 | Goat | 0.84 | | | | 0.0 | Goat | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.113 | 0.655 | 0.0 | 0.2 | Milk/meat | 6 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0100 | Note 49 |
| Year | N | 64 | 1 | 0.1 | 0.1 | 0 | 100 | 11 | 0 | 0 | 0.1 | 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 64 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Goat | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Goat | 0.67 | | | | 0.0 | Goat | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 0.0 | Milk/meat | 6 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0100 | Note 49 |
| Year | N | 64 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 64 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Goat | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Goat | 0.67 | | | | 0.0 | Goat | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.689 | 0.0 | 0.0 | Milk/meat | 6 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0100 | Note 49 |
| Year | N | 64 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 64 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | Goat | YES | 0.0 | 0.0 | NON | 100.00 | SBA | 1.000 | NO | 0.0 | Goat | 0.65 | | | | 0.0 | Goat | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.711 | 0.0 | 0.0 | Milk/meat | 6 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0100 | Note 49 |
| Year | N | 64 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 61 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 64 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | Goat | YES | 0.0 | 0.0 | NON | 100.00 | WBA | 1.000 | NO | 0.0 | Goat | 0.66 | | | | 0.0 | Goat | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Graz | 0.484 | 1.000 | | ORG | 1.00 | 1.000 | 0.712 | 0.0 | 0.0 | Milk/meat | 6 | | | | 0.0 | Graz | 0.0 | 0.00 | 0.0200 | 0.00 | 0.0100 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.77 | 0.19 | 0.05 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.04 | 1.35 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 6.56 | 3.80 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 6.56 | 3.80 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.77 | 0.19 | 0.05 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.04 Total including natural | 7.60 | 4.84 | Note 51 |

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N CHAIN STARTING WITH NO MANURE TO PRODUCE CLOVER GRASS WITHOUT MANURE FOR HIGH N CROP Note 43
AND CONTINUING WITH GREEN MANURE HIGH N TO PRODUCE WINTER WHEAT FOR CATTLE DAIRY Note 43

| Year | | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | N | RATIO OF N2O-N TO N IN FIRST CROP | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | | | | | 675 | 15.1 | 92 | 159 | 88 | 121 | Note 45 |
| Year | N NH3 | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | | | 1838 | 41.2 | 18 | | 18 | | Note 45 |
| 1-10 | N leach | FIRST YEAR | | 0.0036 | | 0.0036 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | | | 1949 | 43.7 | 49 | | 15 | | Note 45 |
| | | TOTAL | | 0.0389 | | 0.0296 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | | | | 4462 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | | 0.2354 | | 0.1789 | Note 46 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 2610 | 1 | 0 | 270.2 | 71 | 0.0 | 0.0 | 4089.5 | 0.0 | 0.0 | 71 | 4089.5 | 14.71 | 14.71 | 14.71 | 14.71 | Note 47 |
| 1 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | CGR0 | 1.296 | NO | -3819.3 | N crop | 0.8 | | | | 1095.3 | Green | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.296 | -14.137 | 0.0 | 0.0 | high N | 71 | | | | 81.4 | High | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 | Note 49 |
| Year | N | 71 | 1 | 4089.5 | 4089.5 | 0 | 100 | 11 | 0 | 0 | 3067.1 | 21 | 1839.8 | 433.1 | 0.0 | 0.0 | 0.0 | 21 | 1406.7 | 48.02 | 90.05 | 45.53 | 66.08 | Note 47 |
| 2 | Vol/NH3 | Green | YES | 0.0 | 1022.4 | NON | 100.00 | WWH | 1.000 | NO | 1227.3 | Cattle | 0.67 | | | | 0.0 | Cattle | 112.5 | 11.35 | 0.0125 | 11.35 | 0.0100 | Note 48 |
| | N leach | High | 0.933 | 1.000 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 1227.3 | Dairy | 2 | | | | 670.7 | Liquid | 0.0 | 30.68 | 0.0010 | 9.20 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 1314.8 | 1285.9 | 0 | 100 | 11 | 0 | 0 | 964.4 | 21 | 578.5 | 136.2 | 0.0 | 0.0 | 0.0 | 21 | 442.3 | 15.10 | 28.60 | 14.32 | 21.07 | Note 47 |
| 3 | Vol/NH3 | Cattle | YES | 28.9 | 321.5 | NON | 100.00 | WWH | 1.000 | NO | 385.9 | Cattle | 0.67 | | | | 0.0 | Cattle | 35.4 | 3.86 | 0.0125 | 3.86 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 385.9 | Dairy | 2 | | | | 210.9 | Liquid | 0.0 | 9.65 | 0.0010 | 2.89 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 413.4 | 404.3 | 0 | 100 | 1 | 0 | 0 | 303.3 | 21 | 168.9 | 38.6 | 0.0 | 0.0 | 0.0 | 21 | 130.3 | 4.68 | 9.25 | 4.40 | 6.62 | Note 47 |
| 4 | Vol/NH3 | Cattle | YES | 9.1 | 101.1 | NON | 100.00 | SBA | 1.000 | NO | 134.4 | Cattle | 0.65 | | | | 0.0 | Cattle | 10.4 | 1.21 | 0.0125 | 1.21 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 134.4 | Dairy | 2 | | | | 61.8 | Liquid | 0.0 | 3.36 | 0.0010 | 1.01 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 121.8 | 119.1 | 0 | 100 | 10 | 0 | 0 | 89.4 | 21 | 49.7 | 11.5 | 0.0 | 0.0 | 0.0 | 21 | 38.2 | 1.37 | 2.71 | 1.28 | 1.94 | Note 47 |
| 5 | Vol/NH3 | Cattle | YES | 2.7 | 29.8 | NON | 100.00 | WBA | 1.000 | NO | 39.6 | Cattle | 0.66 | | | | 0.0 | Cattle | 3.1 | 0.36 | 0.0125 | 0.36 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.444 | 0.0 | 39.6 | Dairy | 2 | | | | 17.2 | Liquid | 0.0 | 0.99 | 0.0010 | 0.30 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 35.7 | 34.9 | 0 | 100 | 2610 | 1 | 0 | 26.2 | 71 | 0.0 | 0.0 | 369.8 | 0.0 | 0.0 | 71 | 369.8 | 1.75 | 1.85 | 1.69 | 1.78 | Note 47 |
| 6 | Vol/NH3 | Cattle | YES | 0.8 | 8.7 | NON | 100.00 | ERROR | 1.296 | NO | -343.6 | N crop | 0.8 | | | | 106.1 | Green | 0.0 | 0.10 | 0.0125 | 0.10 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.296 | -13.128 | 0.0 | 0.0 | high N | 71 | | | | 7.9 | High | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 | Note 49 |
| Year | N | 71 | 1 | 369.8 | 369.8 | 0 | 100 | 11 | 0 | 0 | 277.4 | 21 | 166.4 | 39.2 | 0.0 | 0.0 | 0.0 | 21 | 127.2 | 4.34 | 8.14 | 4.12 | 5.98 | Note 47 |
| 7 | Vol/NH3 | Green | YES | 0.0 | 92.5 | NON | 100.00 | WWH | 1.000 | NO | 111.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 10.2 | 1.03 | 0.0125 | 1.03 | 0.0100 | Note 48 |
| | N leach | High | 0.933 | 1.000 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 111.0 | Dairy | 2 | | | | 60.6 | Liquid | 0.0 | 2.77 | 0.0010 | 0.83 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 118.9 | 116.3 | 0 | 100 | 11 | 0 | 0 | 87.2 | 21 | 52.3 | 12.3 | 0.0 | 0.0 | 0.0 | 21 | 40.0 | 1.37 | 2.59 | 1.29 | 1.91 | Note 47 |
| 8 | Vol/NH3 | Cattle | YES | 2.6 | 29.1 | NON | 100.00 | WWH | 1.000 | NO | 34.9 | Cattle | 0.67 | | | | 0.0 | Cattle | 3.2 | 0.35 | 0.0125 | 0.35 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 34.9 | Dairy | 2 | | | | 19.1 | Liquid | 0.0 | 0.87 | 0.0010 | 0.26 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 37.4 | 36.6 | 0 | 100 | 1 | 0 | 0 | 27.4 | 21 | 15.3 | 3.5 | 0.0 | 0.0 | 0.0 | 21 | 11.8 | 0.42 | 0.84 | 0.40 | 0.60 | Note 47 |
| 9 | Vol/NH3 | Cattle | YES | 0.8 | 9.1 | NON | 100.00 | SBA | 1.000 | NO | 12.1 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.9 | 0.11 | 0.0125 | 0.11 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 12.1 | Dairy | 2 | | | | 5.6 | Liquid | 0.0 | 0.30 | 0.0010 | 0.09 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 11.0 | 10.8 | 0 | 100 | 10 | 0 | 0 | 8.1 | 21 | 4.5 | 1.0 | 0.0 | 0.0 | 0.0 | 21 | 3.5 | 0.12 | 0.25 | 0.12 | 0.18 | Note 47 |
| 10 | Vol/NH3 | Cattle | YES | 0.2 | 2.7 | NON | 100.00 | WBA | 1.000 | NO | 3.6 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.3 | 0.03 | 0.0125 | 0.03 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.444 | 0.0 | 3.6 | Dairy | 2 | | | | 1.6 | Liquid | 0.0 | 0.09 | 0.0010 | 0.03 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 17.07 | 23.75 | 7.47 | 3.14 | 0.74 | 15.94 | 2.15 | 0.68 | 0.28 | 0.07 | 71.28 | 4.17 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 159 | 121 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 159 | 121 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 17.07 | 23.75 | 7.47 | 3.14 | 0.74 | 15.94 | 2.15 | 0.68 | 0.28 | 0.07 | Total including natural | 230 | 192 | Note 51 |

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N CHAIN STARTING WITH NO MANURE TO PRODUCE CLOVER GRASS WITHOUT MANURE FOR LOW N CROP Note 43
AND CONTINUING WITH GREEN MANURE LOW N TO PRODUCE WINTER WHEAT FOR CATTLE DAIRY Note 43

| Year | | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | | | | 372 | 8.7 | 78 | 154 | 73 | 106 | Note 45 |
| Year | N NH3 | ACCORDING TO | | IPCC 1996 | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | | | | 1474 | 34.3 | 15 | | 15 | | Note 45 |
| 1-10 | N leach | FIRST YEAR | | 0.0036 | 0.0036 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | | | | 2456 | 57.1 | 61 | | 18 | | Note 45 |
| | | TOTAL | | 0.0378 | 0.0259 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | | | | | 4303 | 100.0 | | | | | Note 45 |

N2O-N/N in food/beverage/fuel/other 0.4150 0.2843 Note 46

| Year | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 2610 | 1 | 0 | 270.2 | 72 | 0.0 | 0.0 | 4089.5 | 0.0 | 0.0 | 72 | 4089.5 | 14.71 | 14.71 | 14.71 | 14.71 | Note 47 |
| 1 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | CGR0 | 1.296 | NO | -3819.3 | N crop | 0.8 | | | | 1095.3 | Green | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.296 | -14.137 | 0.0 | 0.0 | low N | 72 | | | | 81.4 | Low | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 | Note 49 |
| Year | N | 72 | 1 | 4089.5 | 4089.5 | 0 | 100 | 11 | 0 | 0 | 3067.1 | 21 | 1051.3 | 247.5 | 0.0 | 0.0 | 0.0 | 21 | 803.8 | 47.46 | 108.72 | 42.75 | 68.74 | Note 47 |
| 2 | Vol/NH3 | Green | YES | 0.0 | 1022.4 | NON | 100.00 | WWH | 1.000 | NO | 2015.8 | Cattle | 0.67 | | | | 0.0 | Cattle | 64.3 | 10.87 | 0.0125 | 10.87 | 0.0100 | Note 48 |
| | N leach | Low | 0.533 | 1.000 | | ORG | 1.00 | 1.000 | 0.657 | 0.0 | 2015.8 | Dairy | 2 | | | | 670.7 | Liquid | 0.0 | 50.40 | 0.0010 | 15.12 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 751.3 | 734.8 | 0 | 100 | 11 | 0 | 0 | 551.1 | 21 | 330.6 | 77.8 | 0.0 | 0.0 | 0.0 | 21 | 252.8 | 8.63 | 16.35 | 8.18 | 12.04 | Note 47 |
| 3 | Vol/NH3 | Cattle | YES | 16.5 | 183.7 | NON | 100.00 | WWH | 1.000 | NO | 220.5 | Cattle | 0.67 | | | | 0.0 | Cattle | 20.2 | 2.20 | 0.0125 | 2.20 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 220.5 | Dairy | 2 | | | | 120.5 | Liquid | 0.0 | 5.51 | 0.0010 | 1.65 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 236.3 | 231.1 | 0 | 100 | 1 | 0 | 0 | 173.3 | 21 | 96.5 | 22.0 | 0.0 | 0.0 | 0.0 | 21 | 74.5 | 2.68 | 5.28 | 2.52 | 3.78 | Note 47 |
| 4 | Vol/NH3 | Cattle | YES | 5.2 | 57.8 | NON | 100.00 | SBA | 1.000 | NO | 76.8 | Cattle | 0.65 | | | | 0.0 | Cattle | 6.0 | 0.69 | 0.0125 | 0.69 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 76.8 | Dairy | 2 | | | | 35.3 | Liquid | 0.0 | 1.92 | 0.0010 | 0.58 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 69.6 | 68.1 | 0 | 100 | 10 | 0 | 0 | 51.1 | 21 | 28.4 | 6.6 | 0.0 | 0.0 | 0.0 | 21 | 21.8 | 0.78 | 1.55 | 0.73 | 1.11 | Note 47 |
| 5 | Vol/NH3 | Cattle | YES | 1.5 | 17.0 | NON | 100.00 | WBA | 1.000 | NO | 22.7 | Cattle | 0.66 | | | | 0.0 | Cattle | 1.7 | 0.20 | 0.0125 | 0.20 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.444 | 0.0 | 22.7 | Dairy | 2 | | | | 9.8 | Liquid | 0.0 | 0.57 | 0.0010 | 0.17 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 20.4 | 19.9 | 0 | 100 | 2610 | 1 | 0 | 15.0 | 72 | 0.0 | 0.0 | 211.3 | 0.0 | 0.0 | 72 | 211.3 | 1.00 | 1.06 | 0.96 | 1.02 | Note 47 |
| 6 | Vol/NH3 | Cattle | YES | 0.4 | 5.0 | NON | 100.00 | ERROR | 1.296 | NO | -196.4 | N crop | 0.8 | | | | 60.6 | Green | 0.0 | 0.05 | 0.0125 | 0.05 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.296 | -13.128 | 0.0 | 0.0 | low N | 72 | | | | 4.5 | Low | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 | Note 49 |
| Year | N | 72 | 1 | 211.3 | 211.3 | 0 | 100 | 11 | 0 | 0 | 158.5 | 21 | 54.3 | 12.8 | 0.0 | 0.0 | 0.0 | 21 | 41.5 | 2.45 | 5.62 | 2.21 | 3.55 | Note 47 |
| 7 | Vol/NH3 | Green | YES | 0.0 | 52.8 | NON | 100.00 | WWH | 1.000 | NO | 104.2 | Cattle | 0.67 | | | | 0.0 | Cattle | 3.3 | 0.56 | 0.0125 | 0.56 | 0.0100 | Note 48 |
| | N leach | Low | 0.533 | 1.000 | | ORG | 1.00 | 1.000 | 0.657 | 0.0 | 104.2 | Dairy | 2 | | | | 34.7 | Liquid | 0.0 | 2.60 | 0.0010 | 0.78 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 38.8 | 38.0 | 0 | 100 | 11 | 0 | 0 | 28.5 | 21 | 17.1 | 4.0 | 0.0 | 0.0 | 0.0 | 21 | 13.1 | 0.45 | 0.84 | 0.42 | 0.62 | Note 47 |
| 8 | Vol/NH3 | Cattle | YES | 0.9 | 9.5 | NON | 100.00 | WWH | 1.000 | NO | 11.4 | Cattle | 0.67 | | | | 0.0 | Cattle | 1.0 | 0.11 | 0.0125 | 0.11 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 11.4 | Dairy | 2 | | | | 6.2 | Liquid | 0.0 | 0.28 | 0.0010 | 0.09 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 12.2 | 11.9 | 0 | 100 | 1 | 0 | 0 | 9.0 | 21 | 5.0 | 1.1 | 0.0 | 0.0 | 0.0 | 21 | 3.8 | 0.14 | 0.27 | 0.13 | 0.20 | Note 47 |
| 9 | Vol/NH3 | Cattle | YES | 0.3 | 3.0 | NON | 100.00 | SBA | 1.000 | NO | 4.0 | Cattle | 0.65 | | | | 0.0 | Cattle | 0.3 | 0.04 | 0.0125 | 0.04 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.443 | 0.0 | 4.0 | Dairy | 2 | | | | 1.8 | Liquid | 0.0 | 0.10 | 0.0010 | 0.03 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 3.6 | 3.5 | 0 | 100 | 10 | 0 | 0 | 2.6 | 21 | 1.5 | 0.3 | 0.0 | 0.0 | 0.0 | 21 | 1.1 | 0.04 | 0.08 | 0.04 | 0.06 | Note 47 |
| 10 | Vol/NH3 | Cattle | YES | 0.1 | 0.9 | NON | 100.00 | WBA | 1.000 | NO | 1.2 | Cattle | 0.66 | | | | 0.0 | Cattle | 0.1 | 0.01 | 0.0125 | 0.01 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.444 | 0.0 | 1.2 | Dairy | 2 | | | | 0.5 | Liquid | 0.0 | 0.03 | 0.0010 | 0.01 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 17.07 | 13.57 | 4.27 | 1.79 | 0.42 | 15.94 | 0.70 | 0.22 | 0.09 | 0.02 | 54.10 | 3.17 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 154 | 106 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 154 | 106 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 17.07 | 13.57 | 4.27 | 1.79 | 0.42 | 15.94 | 0.70 | 0.22 | 0.09 | 0.02 | 54.10 Total including natural | 209 | 160 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER WHEAT FOR FOOD Note 43
AND CONTINUING WITH NO MANURE TO PRODUCE NOTHING FOR FOOD Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | Total | N2O-N emission IPCC 2006 Each | Total | Note 44 Note 44 Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total N | | | RATIO OF N2O-N TO N IN FIRST CROP | | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | 64.3 | 64.3 | 1.49 | 2.35 | 1.25 | 1.52 | Note 45 | |
| Year N NH3 | | | ACCORDING TO | | IPCC 1996 | | IPCC 2006 | | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 2.2 | 2.2 | 0.02 | | 0.02 | | Note 45 | |
| 1-10 N leach | | | FIRST YEAR | | 0.0366 | | 0.0236 | | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 33.5 | 33.5 | 0.84 | | 0.25 | | Note 45 | |
| | | | TOTAL | | 0.0366 | | 0.0236 | | | TOTAL N AMOUNTS IN KG AND % | | | | 100.0 | 100.0 | | | | | Note 45 | |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | 0.0366 | | 0.0236 | Note 46 | |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 11 | 0 | 0 | 97.8 | 8 | 0.0 | 0.0 | 0.0 | 64.3 | 0.0 | 0 | 0.0 | 1.49 | 2.35 | 1.25 | 1.52 Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WWH | 1.000 | NO | 33.5 | Food/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.02 | 0.0125 | 0.02 | 0.0100 Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.000 | 0.343 | 0.0 | 33.5 | beverage | 8 | | | | 21.4 | | 0.0 | 0.84 | 0.0000 | 0.25 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 2 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Food/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 3 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Food/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 4 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Food/ | 0.65 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.403 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 5 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Food/ | 0.66 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.404 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 6 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Food/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 7 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Food/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 8 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Food/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 9 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Food/ | 0.65 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.403 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 10 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Food/ | 0.66 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.404 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.64 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.64 | 1.00 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 2.35 | 1.52 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 2.35 | 1.52 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.64 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.64 | Total including natural | 2.99 | 2.16 | Note 51 |

C2 N CHAIN CALCULATIONS SHEET C: N CHAINS BASED UPON DANISH VALUES CALCULATIONS By Jacob Bugge Available at www.ppo.bugge.com C2

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER WHEAT FOR FUEL Note 43
AND CONTINUING WITH NO MANURE TO PRODUCE NOTHING FOR FUEL Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Amounts Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Fodder: Uses #21-61 Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | N2O-N emission IPCC 1996 Total | N2O-N emission IPCC 2006 Each | N2O-N emission IPCC 2006 Total | Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | N | | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | 64.3 | 64.3 | 1.49 | 2.35 | 1.25 | 1.52 | Note 45 | | | | |
| Year | N NH3 | | ACCORDING TO | | IPCC 1996 | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | 2.2 | 2.2 | 0.02 | | 0.02 | | Note 45 | | | |
| 1-10 | N leach | | FIRST YEAR | | 0.0366 | 0.0236 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | 33.5 | 33.5 | 0.84 | | 0.25 | | Note 45 | | | |
| | | | TOTAL | | 0.0366 | 0.0236 | | TOTAL N AMOUNTS IN KG AND % | | | | | | 100.0 | 100.0 | | | | | Note 45 | | | |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | 0.0366 | | 0.0236 | Note 46 | |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 11 | 0 | 0 | 97.8 | 9 | 0.0 | 0.0 | 0.0 | 0.0 | 64.3 | 0 | 0.0 | 1.49 | 2.35 | 1.25 | 1.52 Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | WWH | 1.000 | NO | 33.5 | Fuel/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.02 | 0.0125 | 0.02 | 0.0100 Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.000 | 0.343 | 0.0 | 33.5 | other | 9 | | | | 21.4 | | 0.0 | 0.84 | 0.0000 | 0.25 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 2 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Fuel/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | other | 9 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 3 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Fuel/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | other | 9 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 4 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Fuel/ | 0.65 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.403 | 0.0 | 0.0 | other | 9 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 5 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Fuel/ | 0.66 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.404 | 0.0 | 0.0 | other | 9 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 6 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Fuel/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | other | 9 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 7 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Fuel/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | other | 9 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 8 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Fuel/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | other | 9 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 1 | 0 | 0 | 0.0 | 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 9 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Fuel/ | 0.65 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.403 | 0.0 | 0.0 | other | 9 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 10 | 0 | 0 | 0.0 | 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 Note 47 |
| 10 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Fuel/ | 0.66 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.404 | 0.0 | 0.0 | other | 9 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 0.64 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.64 | 1.00 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 2.35 | 1.52 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 2.35 | 1.52 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 0.64 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.64 | Total including natural | 2.99 | 2.16 | Note 51 |

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N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CLOVER GRASS FOR CATTLE DAIRY Note 43
AND CONTINUING WITH LIQUID CATTLE MANURE TO PRODUCE CLOVER GRASS FOR CATTLE DAIRY Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Amounts Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Fodder: Uses #21-61 Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | N2O-N emission IPCC 1996 Total | N2O-N emission IPCC 2006 Each | N2O-N emission IPCC 2006 Total | Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | N | | RATIO OF N2O-N TO N IN FIRST CROP | | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | | | | 35879 | 38.6 | 1552 | 2500 | 1746 | 2252 | Note 45 |
| Year | N NH3 | | ACCORDING TO | | IPCC 1996 | IPCC 2006 | | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | | | | 31724 | 34.2 | 317 | | 317 | | Note 45 |
| 1-10 | N leach | | FIRST YEAR | | 0.0162 | 0.0186 | | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | | | | 25256 | 27.2 | 631 | | 189 | | Note 45 |
| | | | TOTAL | | 2.1400 | 1.9279 | | TOTAL N AMOUNTS IN KG AND % | | | | | | | | | | 92859 | 100.0 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | | 0.0697 | | 0.0628 | | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 261 | 0 | 0 | 97.8 | 21 | 1168.3 | 329.7 | 0.0 | 0.0 | 0.0 | 21 | 838.7 | 18.18 | 18.87 | 21.02 | 21.71 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | CGR | 1.000 | NO | -1070.5 | Cattle | 0.8 | | | | 1169.8 | Cattle | 67.1 | 0.69 | 0.0125 | 0.69 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.000 | -10.946 | 0.0 | 0.0 | Dairy | 2 | | | | 125.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 783.9 | 766.7 | 0 | 100 | 261 | 1 | 0 | 575.0 | 21 | 21947.3 | 6192.7 | 0.0 | 0.0 | 0.0 | 21 | 15754.7 | 116.84 | 131.53 | 173.38 | 188.07 | Note 47 |
| 2 | Vol/NH3 | Cattle | YES | 17.2 | 191.7 | NON | 100.00 | CGR | 3.500 | NO | -21372.3 | Cattle | 0.8 | | | | 6877.8 | Cattle | 1260.4 | 14.69 | 0.0125 | 14.69 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 3.500 | -37.169 | 0.0 | 0.0 | Dairy | 2 | | | | 734.9 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 14726.2 | 14402.2 | 0 | 100 | 11 | 0 | 0 | 10801.7 | 21 | 6479.4 | 1525.4 | 0.0 | 0.0 | 0.0 | 21 | 4953.9 | 169.10 | 320.37 | 160.33 | 235.95 | Note 47 |
| 3 | Vol/NH3 | Cattle | YES | 324.0 | 3600.6 | NON | 100.00 | WWH | 1.000 | NO | 4322.3 | Cattle | 0.67 | | | | 0.0 | Cattle | 396.3 | 43.21 | 0.0125 | 43.21 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 4322.3 | Dairy | 2 | | | | 2361.9 | Liquid | 0.0 | 108.06 | 0.0010 | 32.42 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 4630.5 | 4528.7 | 0 | 100 | 11 | 0 | 0 | 3396.5 | 21 | 2037.4 | 479.7 | 0.0 | 0.0 | 0.0 | 21 | 1557.7 | 53.17 | 100.74 | 50.41 | 74.19 | Note 47 |
| 4 | Vol/NH3 | Cattle | YES | 101.9 | 1132.2 | NON | 100.00 | WWH | 1.000 | NO | 1359.1 | Cattle | 0.67 | | | | 0.0 | Cattle | 124.6 | 13.59 | 0.0125 | 13.59 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 1359.1 | Dairy | 2 | | | | 742.7 | Liquid | 0.0 | 33.98 | 0.0010 | 10.19 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 1456.0 | 1424.0 | 0 | 100 | 11 | 0 | 0 | 1068.0 | 21 | 640.6 | 150.8 | 0.0 | 0.0 | 0.0 | 21 | 489.8 | 16.72 | 31.68 | 15.85 | 23.33 | Note 47 |
| 5 | Vol/NH3 | Cattle | YES | 32.0 | 356.0 | NON | 100.00 | WWH | 1.000 | NO | 427.4 | Cattle | 0.67 | | | | 0.0 | Cattle | 39.2 | 4.27 | 0.0125 | 4.27 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 427.4 | Dairy | 2 | | | | 233.5 | Liquid | 0.0 | 10.68 | 0.0010 | 3.21 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 457.8 | 447.8 | 0 | 100 | 261 | 0 | 0 | 335.8 | 21 | 3662.0 | 1033.3 | 0.0 | 0.0 | 0.0 | 21 | 2628.7 | 62.19 | 65.52 | 71.03 | 74.35 | Note 47 |
| 6 | Vol/NH3 | Cattle | YES | 10.1 | 111.9 | NON | 100.00 | CGR | 1.000 | NO | -3326.1 | Cattle | 0.8 | | | | 4016.9 | Cattle | 210.3 | 3.32 | 0.0125 | 3.32 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | -9.904 | 0.0 | 0.0 | Dairy | 2 | | | | 429.2 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 2457.1 | 2403.0 | 0 | 100 | 261 | 1 | 0 | 1802.3 | 21 | 68791.6 | 19410.3 | 0.0 | 0.0 | 0.0 | 21 | 49381.3 | 366.22 | 412.27 | 543.44 | 589.49 | Note 47 |
| 7 | Vol/NH3 | Cattle | YES | 54.1 | 600.8 | NON | 100.00 | CGR | 3.500 | NO | -66989.3 | Cattle | 0.8 | | | | 21557.6 | Cattle | 3950.5 | 46.05 | 0.0125 | 46.05 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 3.500 | -37.169 | 0.0 | 0.0 | Dairy | 2 | | | | 2303.4 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 46157.7 | 45142.2 | 0 | 100 | 11 | 0 | 0 | 33856.6 | 21 | 20308.9 | 4781.3 | 0.0 | 0.0 | 0.0 | 21 | 15527.6 | 530.03 | 1004.16 | 502.53 | 739.57 | Note 47 |
| 8 | Vol/NH3 | Cattle | YES | 1015.5 | 11285.5 | NON | 100.00 | WWH | 1.000 | NO | 13547.8 | Cattle | 0.67 | | | | 0.0 | Cattle | 1242.2 | 135.43 | 0.0125 | 135.43 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 13547.8 | Dairy | 2 | | | | 7403.0 | Liquid | 0.0 | 338.69 | 0.0010 | 101.61 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 14514.0 | 14194.6 | 0 | 100 | 11 | 0 | 0 | 10646.0 | 21 | 6386.0 | 1503.4 | 0.0 | 0.0 | 0.0 | 21 | 4882.5 | 166.66 | 315.75 | 158.02 | 232.55 | Note 47 |
| 9 | Vol/NH3 | Cattle | YES | 319.3 | 3548.7 | NON | 100.00 | WWH | 1.000 | NO | 4260.0 | Cattle | 0.67 | | | | 0.0 | Cattle | 390.6 | 42.59 | 0.0125 | 42.59 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 4260.0 | Dairy | 2 | | | | 2327.8 | Liquid | 0.0 | 106.50 | 0.0010 | 31.95 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 4563.8 | 4463.4 | 0 | 100 | 11 | 0 | 0 | 3347.6 | 21 | 2008.0 | 472.7 | 0.0 | 0.0 | 0.0 | 21 | 1535.3 | 52.41 | 99.29 | 49.69 | 73.12 | Note 47 |
| 10 | Vol/NH3 | Cattle | YES | 100.4 | 1115.9 | NON | 100.00 | WWH | 1.000 | NO | 1339.5 | Cattle | 0.67 | | | | 0.0 | Cattle | 122.8 | 13.39 | 0.0125 | 13.39 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 1339.5 | Dairy | 2 | | | | 732.0 | Liquid | 0.0 | 33.49 | 0.0010 | 10.05 | 0.0050 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 4.88 | 119.49 | 83.64 | 26.30 | 8.27 | 19.94 | 374.54 | 262.16 | 82.43 | 25.92 | 1007.57 | 206.55 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 2500 | 2252 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 2500 | 2252 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 4.88 | 119.49 | 83.64 | 26.30 | 8.27 | 19.94 | 374.54 | 262.16 | 82.43 | 25.92 | 1007.57 | Total including natural | 3508 | 3260 | Note 51 |

C2 N CHAIN CALCULATIONS SHEET C: N CHAINS BASED UPON DANISH VALUES CALCULATIONS By Jacob Bugge Available at www.ppo.bugge.com C2

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CLOVER GRASS FOR CATTLE DAIRY Note 43
AND CONTINUING WITH LIQUID CATTLE MANURE TO PRODUCE CLOVER GRASS FOR CATTLE DAIRY Note 43

| Year | Fertlizer/manure # Name | Store 1/0 | Amounts Store | Amounts Field | Or-ganic 1/0 | Nnorm propor tion, % | Crop # Name | Cereal benefit 1/0 | Straw used 1/0 | Crop use & leach | Use # Name | Fodder: Uses #21-61 Fed | Fodder: Uses #21-61 Food | N crop #71/ #72 | Food/ bev #8 | Fuel/ other #9 | Manure handling # Name | Final N a-mounts | N2O-N emission IPCC 1996 Each | N2O-N emission IPCC 1996 Total | N2O-N emission IPCC 2006 Each | N2O-N emission IPCC 2006 Total | Note 44 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total | N | | RATIO OF N2O-N TO N IN FIRST CROP | | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | | | | 13002 | 57.1 | | 300 | 462 | 332 | 419 | Note 45 |
| Year | N NH3 | | ACCORDING TO | | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | | | | 5463 | 24.0 | | 55 | | 55 | | Note 45 |
| 1-10 | N leach | | FIRST YEAR | | 0.0162 | 0.0186 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | | | | 4322 | 19.0 | | 108 | | 32 | | Note 45 |
| | | | TOTAL | | 0.3957 | 0.3586 | TOTAL N AMOUNTS IN KG AND % | | | | | | | 22787 | 100.0 | | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | | | | | | | | | 0.0356 | | 0.0322 | | Note 46 |
| Year | N | 1 | 1 | 100.0 | 100.0 | 0 | 100 | 261 | 0 | 0 | 97.8 | 21 | 1168.3 | 329.7 | 0.0 | 0.0 | 0.0 | 21 | 838.7 | 18.18 | 18.87 | 21.02 | 21.71 | Note 47 |
| 1 | Vol/NH3 | N | YES | 0.0 | 2.2 | NON | 100.00 | CGR | 1.000 | NO | -1070.5 | Cattle | 0.8 | | | | 1169.8 | Cattle | 67.1 | 0.69 | 0.0125 | 0.69 | 0.0100 | Note 48 |
| | N leach | | 1.022 | 1.000 | | ORG | 1.00 | 1.000 | -10.946 | 0.0 | 0.0 | Dairy | 2 | | | | 125.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 783.9 | 766.7 | 0 | 100 | 261 | 1 | 0 | 575.0 | 21 | 21947.3 | 6192.7 | 0.0 | 0.0 | 0.0 | 21 | 15754.7 | 116.84 | 131.53 | 173.38 | 188.07 | Note 47 |
| 2 | Vol/NH3 | Cattle | YES | 17.2 | 191.7 | NON | 100.00 | CGR | 3.500 | NO | -21372.3 | Cattle | 0.8 | | | | 6877.8 | Cattle | 1260.4 | 14.69 | 0.0125 | 14.69 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 3.500 | -37.169 | 0.0 | 0.0 | Dairy | 2 | | | | 734.9 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 14726.2 | 14402.2 | 0 | 100 | 11 | 0 | 0 | 10801.7 | 8 | 0.0 | 0.0 | 0.0 | 6479.4 | 0.0 | 0 | 0.0 | 164.54 | 311.85 | 137.54 | 209.20 | Note 47 |
| 3 | Vol/NH3 | Cattle | YES | 324.0 | 3600.6 | NON | 100.00 | WWH | 1.000 | NO | 4322.3 | Food/ | 0.67 | | | | 0.0 | NONE | 0.0 | 39.25 | 0.0125 | 39.25 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 4322.3 | beverage | 8 | | | | 2361.9 | | 0.0 | 108.06 | 0.0000 | 32.42 | 0.0000 | Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 4 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Food/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 | Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 5 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Food/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 | Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 261 | 0 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 6 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Cattle | 0.8 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | -10.683 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 0.0 | 0.0 | 0 | 100 | 261 | 1 | 0 | 0.0 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 7 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | CGR | 3.500 | NO | 0.0 | Cattle | 0.8 | | | | 0.0 | Cattle | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 3.500 | -37.169 | 0.0 | 0.0 | Dairy | 2 | | | | 0.0 | Liquid | 0.0 | 0.00 | 0.0010 | 0.00 | 0.0050 | Note 49 |
| Year | N | 21 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 8 | Vol/NH3 | Cattle | YES | 0.0 | 0.0 | NON | 100.00 | WWH | 1.000 | NO | 0.0 | Food/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | Liquid | 0.933 | 1.016 | | ORG | 1.00 | 1.000 | 0.400 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 | Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 9 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Food/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 | Note 49 |
| Year | N | 0 | 1 | 0.0 | 0.0 | 0 | 100 | 11 | 0 | 0 | 0.0 | 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | Note 47 |
| 10 | Vol/NH3 | None | YES | 0.0 | 0.0 | NON | 100.00 | NO | 1.000 | NO | 0.0 | Food/ | 0.67 | | | | 0.0 | NONE | 0.0 | 0.00 | 0.0125 | 0.00 | 0.0100 | Note 48 |
| | N leach | | 1.000 | 1.000 | | ORG | 1.00 | 1.000 | 0.357 | 0.0 | 0.0 | beverage | 8 | | | | 0.0 | | 0.0 | 0.00 | 0.0000 | 0.00 | 0.0000 | Note 49 |

| Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year10 | Total | Total/year 1 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area with crop, ha | 4.88 | 119.49 | 83.64 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 208.01 | 42.64 | Note 50 |

| Possible additional non IPCC N2O-N emissions | Value | | | | | | | | | | | Kind of source | Total IPCC and non IPCC N2O | | Note 51 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N residues emissions, ratio of N2O-N to N: | 0.0000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Current crops | 462 | 419 | Note 51 |
| Increased soil N emissions, kg N2O-N/ha: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Total anthropogenic | 462 | 419 | Note 51 |
| Natural background emissions, kg N2O-N/ha: | 1.00 | 4.88 | 119.49 | 83.64 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 208.01 | Total including natural | 670 | 627 | Note 51 |

SUMMARY CATTLE DAIRY

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | CATTLE DAIRY | | | | | Note 43 |
| AND CONTINUING WITH | LIQUID CATTLE MANURE | | | TO PRODUCE | WINTER WHEAT FOR | | | CATTLE DAIRY | | | | | Note 43 |
| | | | | | | | | | | | | | |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 28.08 | 27.78 | 2.27 | 3.70 | 2.17 | 2.78 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 26.26 | 25.98 | 0.26 | | 0.26 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0310 | 0.0237 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 46.74 | 46.24 | 1.17 | | 0.35 | Note 45 |
| | TOTAL | 0.0519 | 0.0390 | TOTAL N AMOUNTS IN KG AND % | | | | 101.08 | 100.00 | | | | Note 45 |
| | | | | | | | | | | | | | |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.1318 | | 0.0991 Note 46 |
| | | | | | | | | | Total/year 1 | | | | |
| Area with crop, ha | | | | | | | | 1.17 | 1.52 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 1.17 | | | 4.87 | | 3.95 Note 51 |
| | | | | | | | | | | | | | |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | CATTLE DAIRY | | | | | Note 43 |
| AND CONTINUING WITH | SEPARATED CATTLE MANURE | | | TO PRODUCE | WINTER WHEAT FOR | | | CATTLE DAIRY | | | | | Note 43 |
| | | | | | | | | | | | | | |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 27.08 | 26.79 | 2.84 | 4.29 | 2.12 | 2.74 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 26.85 | 26.57 | 0.27 | | 0.27 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0372 | 0.0236 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 47.13 | 46.64 | 1.18 | | 0.35 | Note 45 |
| | TOTAL | 0.0602 | 0.0384 | TOTAL N AMOUNTS IN KG AND % | | | | 101.06 | 100.00 | | | | Note 45 |
| | | | | | | | | | | | | | |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.1584 | | 0.1011 Note 46 |
| | | | | | | | | | Total/year 1 | | | | |
| Area with crop, ha | | | | | | | | 1.11 | 1.44 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 1.11 | | | 5.40 | | 3.85 Note 51 |
| | | | | | | | | | | | | | |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | CATTLE DAIRY | | | | | Note 43 |
| AND CONTINUING WITH | CATTLE DEEP LITTER | | | TO PRODUCE | WINTER WHEAT FOR | | | CATTLE DAIRY | | | | | Note 43 |
| | | | | | | | | | | | | | |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 24.17 | 22.17 | 3.10 | 4.67 | 1.92 | 2.65 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 37.09 | 34.02 | 0.37 | | 0.37 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0435 | 0.0236 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 47.77 | 43.81 | 1.19 | | 0.36 | Note 45 |
| | TOTAL | 0.0655 | 0.0372 | TOTAL N AMOUNTS IN KG AND % | | | | 109.03 | 100.00 | | | | Note 45 |
| | | | | | | | | | | | | | |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.1931 | | 0.1096 Note 46 |
| | | | | | | | | | Total/year 1 | | | | |
| Area with crop, ha | | | | | | | | 0.95 | 1.22 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 0.95 | | | 5.61 | | 3.59 Note 51 |
| | | | | | | | | | | | | | |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | CATTLE DAIRY | | | | | Note 43 |
| AND CONTINUING WITH | MANURE FROM GRAZING CATTLE | | | TO PRODUCE | WINTER WHEAT FOR | | | CATTLE DAIRY | | | | | Note 43 |
| | | | | | | | | | | | | | |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 25.41 | 25.41 | 3.64 | 5.41 | 3.25 | 3.82 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 6.71 | 6.71 | 0.07 | | 0.07 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0439 | 0.0340 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 67.87 | 67.87 | 1.70 | | 0.51 | Note 45 |
| | TOTAL | 0.0758 | 0.0536 | TOTAL N AMOUNTS IN KG AND % | | | | 100.00 | 100.00 | | | | Note 45 |
| | | | | | | | | | | | | | |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.2127 | | 0.1505 Note 46 |
| | | | | | | | | | Total/year 1 | | | | |
| Area with crop, ha | | | | | | | | 0.97 | 1.25 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 0.97 | | | 6.38 | | 4.79 Note 51 |

SUMMARY CATTLE BEEF

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | CATTLE BEEF | | | | | Note 43 |
| AND CONTINUING WITH | LIQUID CATTLE MANURE | | | TO PRODUCE | WINTER WHEAT FOR | | CATTLE BEEF | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | 25.17 | 24.89 | 2.33 | 3.81 | 2.23 | 2.87 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | 27.87 | 27.56 | 0.28 | | 0.28 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0311 | 0.0239 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | 48.10 | 47.56 | 1.20 | | 0.36 | Note 45 |
| | TOTAL | 0.0534 | 0.0403 | TOTAL N AMOUNTS IN KG AND % | | | 101.15 | 100.00 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | 0.1512 | | 0.1142 Note 46 |
| | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | 1.20 | 1.55 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | 1.20 | | | 5.00 | | 4.07 Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | CATTLE BEEF | | | | | Note 43 |
| AND CONTINUING WITH | SEPARATED CATTLE MANURE | | | TO PRODUCE | WINTER WHEAT FOR | | CATTLE BEEF | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | 24.22 | 23.95 | 2.93 | 4.43 | 2.18 | 2.82 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | 28.44 | 28.12 | 0.28 | | 0.28 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0376 | 0.0238 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | 48.47 | 47.93 | 1.21 | | 0.36 | Note 45 |
| | TOTAL | 0.0621 | 0.0396 | TOTAL N AMOUNTS IN KG AND % | | | 101.13 | 100.00 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | 0.1828 | | 0.1166 Note 46 |
| | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | 1.13 | 1.47 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | 0.95 | | | 5.56 | | 3.96 Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | CATTLE BEEF | | | | | Note 43 |
| AND CONTINUING WITH | CATTLE DEEP LITTER | | | TO PRODUCE | WINTER WHEAT FOR | | CATTLE BEEF | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | 21.47 | 19.60 | 3.20 | 4.81 | 1.96 | 2.72 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | 39.09 | 35.68 | 0.39 | | 0.39 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0442 | 0.0238 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | 48.98 | 44.72 | 1.22 | | 0.37 | Note 45 |
| | TOTAL | 0.0675 | 0.0382 | TOTAL N AMOUNTS IN KG AND % | | | 109.55 | 100.00 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | 0.2242 | | 0.1267 Note 46 |
| | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | 0.96 | 1.24 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | 0.96 | | | 5.77 | | 3.68 Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | CATTLE BEEF | | | | | Note 43 |
| AND CONTINUING WITH | MANURE FROM GRAZING CATTLE | | | TO PRODUCE | WINTER WHEAT FOR | | CATTLE BEEF | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | 22.64 | 22.64 | 3.78 | 5.60 | 3.37 | 3.97 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | 6.98 | 6.98 | 0.07 | | 0.07 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0446 | 0.0347 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | 70.37 | 70.37 | 1.76 | | 0.53 | Note 45 |
| | TOTAL | 0.0786 | 0.0557 | TOTAL N AMOUNTS IN KG AND % | | | 100.00 | 100.00 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | 0.2475 | | 0.1753 Note 46 |
| | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | 0.98 | 1.27 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | 0.98 | | | 6.59 | | 4.95 Note 51 |

SUMMARY PIG PORK

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | PIG PORK | | | | | Note 43 |
| AND CONTINUING WITH | LIQUID PIG MANURE | | | TO PRODUCE | WINTER WHEAT FOR | | PIG PORK | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | 38.90 | 38.90 | 2.00 | 3.20 | 1.86 | 2.38 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | 22.37 | 22.37 | 0.22 | | 0.22 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0311 | 0.0232 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | 38.73 | 38.73 | 0.97 | | 0.29 | Note 45 |
| | TOTAL | 0.0448 | 0.0333 | TOTAL N AMOUNTS IN KG AND % | | | 100.00 | 100.00 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | 0.0822 | | 0.0611 Note 46 |
| | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | 1.06 | 1.37 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | 1.06 | | | 4.25 | | 3.43 Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | PIG PORK | | | | | Note 43 |
| AND CONTINUING WITH | SEPARATED PIG MANURE | | | TO PRODUCE | WINTER WHEAT FOR | | PIG PORK | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | 35.48 | 35.14 | 2.24 | 3.45 | 1.71 | 2.27 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | 28.12 | 27.85 | 0.28 | | 0.28 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0359 | 0.0233 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | 37.37 | 37.01 | 0.93 | | 0.28 | Note 45 |
| | TOTAL | 0.0484 | 0.0319 | TOTAL N AMOUNTS IN KG AND % | | | 100.97 | 100.00 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | 0.0973 | | 0.0640 Note 46 |
| | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | 0.95 | 1.23 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | 0.95 | | | 4.40 | | 3.22 Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | PIG PORK | | | | | Note 43 |
| AND CONTINUING WITH | PIG DEEP LITTER | | | TO PRODUCE | WINTER WHEAT FOR | | PIG PORK | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | 33.99 | 32.52 | 2.42 | 3.65 | 1.60 | 2.22 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | 36.03 | 34.47 | 0.36 | | 0.36 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0400 | 0.0235 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | 34.49 | 33.00 | 0.86 | | 0.26 | Note 45 |
| | TOTAL | 0.0512 | 0.0312 | TOTAL N AMOUNTS IN KG AND % | | | 104.51 | 100.00 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | 0.1073 | | 0.0654 Note 46 |
| | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | 0.90 | 1.17 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | 0.90 | | | 4.55 | | 3.12 Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | PIG PORK | | | | | Note 43 |
| AND CONTINUING WITH | MANURE FROM ROOTING PIGS | | | TO PRODUCE | WINTER WHEAT FOR | | PIG PORK | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | 39.33 | 39.33 | 3.31 | 4.74 | 2.94 | 3.41 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | 6.03 | 6.03 | 0.06 | | 0.06 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0415 | 0.0315 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | 54.64 | 54.64 | 1.37 | | 0.41 | Note 45 |
| | TOTAL | 0.0664 | 0.0478 | TOTAL N AMOUNTS IN KG AND % | | | 100.00 | 100.00 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | 0.1205 | | 0.0867 Note 46 |
| | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | 1.01 | 1.31 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | 1.01 | | | 5.75 | | 4.42 Note 51 |

SUMMARY POULTRY MEAT

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | POULTRY MEAT | | | | | Note 43 |
| AND CONTINUING WITH | LIQUID POULTRY MANURE | | | TO PRODUCE | WINTER WHEAT FOR | | | POULTRY MEAT | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 44.35 | 44.35 | 1.91 | 3.05 | 1.75 | 2.21 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 16.62 | 16.62 | 0.17 | | 0.17 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0307 | 0.0226 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 39.03 | 39.03 | 0.98 | | 0.29 | Note 45 |
| | TOTAL | 0.0428 | 0.0309 | TOTAL N AMOUNTS IN KG AND % | | | | 100.00 | 100.00 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.0688 | | 0.0497 Note 46 |
| | | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | | 0.98 | 1.27 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 0.98 | | | 4.03 | | 3.18 Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | POULTRY MEAT | | | | | Note 43 |
| AND CONTINUING WITH | SEPARATED POULTRY MANURE | | | TO PRODUCE | WINTER WHEAT FOR | | | POULTRY MEAT | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 41.81 | 41.81 | 2.05 | 3.16 | 1.59 | 2.09 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 23.16 | 23.16 | 0.23 | | 0.23 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0349 | 0.0229 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 35.03 | 35.03 | 0.88 | | 0.26 | Note 45 |
| | TOTAL | 0.0443 | 0.0293 | TOTAL N AMOUNTS IN KG AND % | | | | 100.00 | 100.00 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.0755 | | 0.0499 Note 46 |
| | | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | | 0.91 | 1.18 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 0.91 | | | 4.07 | | 3.00 Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | POULTRY MEAT | | | | | Note 43 |
| AND CONTINUING WITH | POULTRY DEEP LITTER | | | TO PRODUCE | WINTER WHEAT FOR | | | POULTRY MEAT | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 39.14 | 39.02 | 2.11 | 3.25 | 1.49 | 2.01 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 25.96 | 25.88 | 0.26 | | 0.26 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0377 | 0.0233 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 35.20 | 35.10 | 0.88 | | 0.26 | Note 45 |
| | TOTAL | 0.0455 | 0.0282 | TOTAL N AMOUNTS IN KG AND % | | | | 100.29 | 100.00 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.0830 | | 0.0514 Note 46 |
| | | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | | 0.84 | 1.09 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 0.84 | | | 4.09 | | 2.86 Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | POULTRY MEAT | | | | | Note 43 |
| AND CONTINUING WITH | MANURE FROM SCRAPING POULTRY | | | TO PRODUCE | WINTER WHEAT FOR | | | POULTRY MEAT | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 42.35 | 42.35 | 2.83 | 4.20 | 2.49 | 2.94 Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 5.05 | 5.05 | 0.05 | | 0.05 | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0396 | 0.0297 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 52.60 | 52.60 | 1.31 | | 0.39 | Note 45 |
| | TOTAL | 0.0589 | 0.0412 | TOTAL N AMOUNTS IN KG AND % | | | | 100.00 | 100.00 | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.0991 | | 0.0693 Note 46 |
| Area with crop, ha | Total/year 1 | | | | | | | 0.90 | 1.16 | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 0.90 | | | 5.09 | | 3.83 Note 51 |

SUMMARY POULTRY EGGS

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | POULTRY EGGS | | | | Note 43 |
| AND CONTINUING WITH | LIQUID POULTRY MANURE | | | TO PRODUCE | WINTER WHEAT FOR | | | POULTRY EGGS | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 23.81 | 23.81 | 2.26 | 3.75 | 2.16 | 2.80 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 27.58 | 27.58 | 0.28 | | 0.28 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0313 | 0.0241 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 48.61 | 48.61 | 1.22 | | 0.36 | | Note 45 |
| | TOTAL | 0.0527 | 0.0393 | TOTAL N AMOUNTS IN KG AND % | | | | 100.00 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.1577 | | 0.1178 | Note 46 |
| | | | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | | 1.14 | 1.47 | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 1.14 | | | 4.89 | | 3.94 | Note 51 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | POULTRY EGGS | | | | Note 43 |
| AND CONTINUING WITH | SEPARATED POULTRY MANURE | | | TO PRODUCE | WINTER WHEAT FOR | | | POULTRY EGGS | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 21.52 | 21.52 | 2.47 | 3.87 | 1.86 | 2.55 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 37.57 | 37.57 | 0.38 | | 0.38 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0377 | 0.0246 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 40.91 | 40.91 | 1.02 | | 0.31 | | Note 45 |
| | TOTAL | 0.0542 | 0.0357 | TOTAL N AMOUNTS IN KG AND % | | | | 100.00 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.1797 | | 0.1183 | Note 46 |
| | | | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | | 1.01 | 1.31 | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 1.01 | | | 4.87 | | 3.55 | Note 51 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | POULTRY EGGS | | | | Note 43 |
| AND CONTINUING WITH | POULTRY DEEP LITTER | | | TO PRODUCE | WINTER WHEAT FOR | | | POULTRY EGGS | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 19.30 | 19.21 | 2.52 | 3.94 | 1.67 | 2.38 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 40.61 | 40.42 | 0.41 | | 0.41 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0420 | 0.0252 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 40.56 | 40.37 | 1.01 | | 0.30 | | Note 45 |
| | TOTAL | 0.0552 | 0.0334 | TOTAL N AMOUNTS IN KG AND % | | | | 100.47 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.2040 | | 0.1233 | Note 46 |
| | | | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | | 0.89 | 1.15 | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 0.89 | | | 4.82 | | 3.27 | Note 51 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | POULTRY EGGS | | | | Note 43 |
| AND CONTINUING WITH | MANURE FROM SCRAPING POULTRY | | | TO PRODUCE | WINTER WHEAT FOR | | | POULTRY EGGS | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 21.99 | 21.99 | 3.81 | 5.65 | 3.40 | 4.00 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 7.05 | 7.05 | 0.07 | | 0.07 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0450 | 0.0351 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 70.96 | 70.96 | 1.77 | | 0.53 | | Note 45 |
| | TOTAL | 0.0793 | 0.0562 | TOTAL N AMOUNTS IN KG AND % | | | | 100.00 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.2569 | | 0.1820 | Note 46 |
| | | | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | | | 0.98 | 1.27 | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 0.98 | | | 6.63 | | 4.99 | Note 51 |

SUMMARY SHEEP AND GOATS

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | SHEEP MILK/MUTTON | | | | Note 43 |
| AND CONTINUING WITH | SHEEP DEEP LITTER | | | TO PRODUCE | WINTER WHEAT FOR | | | SHEEP MILK/MUTTON | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 14.99 | 13.33 | 4.34 | 6.54 | 2.72 | 3.49 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 15.79 | 14.04 | 0.16 | | 0.16 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0457 | 0.0248 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 81.69 | 72.63 | 2.04 | | 0.61 | | Note 45 |
| | TOTAL | 0.0918 | 0.0489 | TOTAL N AMOUNTS IN KG AND % | | | | 112.47 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.4363 | | 0.2327 | Note 46 |
| | | | | | | | | Total/year 1 | | | | | | |
| Area with crop, ha | | | | | | | | 1.11 | 1.44 | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 1.11 | | | 7.66 | | 4.60 | Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | SHEEP MILK/MUTTON | | | | | | Note 43 |
| AND CONTINUING WITH | MANURE FROM GRAZING SHEEP | | | TO PRODUCE | WINTER WHEAT FOR | | | SHEEP MILK/MUTTON | | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 13.45 | 13.45 | 4.22 | 6.26 | 2.16 | 2.83 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 7.89 | 7.89 | 0.08 | | 0.08 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0470 | 0.0199 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 78.66 | 78.66 | 1.97 | | 0.59 | | Note 45 |
| | TOTAL | 0.0878 | 0.0396 | TOTAL N AMOUNTS IN KG AND % | | | | 100.00 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.4656 | | 0.2102 | Note 46 |
| | | | | | | | | Total/year 1 | | | | | | |
| Area with crop, ha | | | | | | | | 1.02 | 1.32 | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 1.02 | | | 7.28 | | 3.85 | Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | GOAT MILK/MEAT | | | | | | Note 43 |
| AND CONTINUING WITH | GOAT DEEP LITTER | | | TO PRODUCE | WINTER WHEAT FOR | | | GOAT MILK/MEAT | | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 8.76 | 7.87 | 3.63 | 5.54 | 2.21 | 3.09 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 44.11 | 39.61 | 0.44 | | 0.44 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0465 | 0.0251 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 58.49 | 52.52 | 1.46 | | 0.44 | | Note 45 |
| | TOTAL | 0.0777 | 0.0433 | TOTAL N AMOUNTS IN KG AND % | | | | 111.36 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.6320 | | 0.3524 | Note 46 |
| | | | | | | | | Total/year 1 | | | | | | |
| Area with crop, ha | | | | | | | | 1.03 | 1.34 | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 1.03 | | | 6.57 | | 4.12 | Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER RAPESEED FOR OIL AND | | | GOAT MILK/MEAT | | | | | | Note 43 |
| AND CONTINUING WITH | MANURE FROM GRAZING GOATS | | | TO PRODUCE | WINTER WHEAT FOR | | | GOAT MILK/MEAT | | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | | 9.25 | 9.25 | 4.42 | 6.56 | 3.10 | 3.80 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | | 8.30 | 8.30 | 0.08 | | 0.08 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0479 | 0.0289 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | | 82.45 | 82.45 | 2.06 | | 0.62 | | Note 45 |
| | TOTAL | 0.0920 | 0.0533 | TOTAL N AMOUNTS IN KG AND % | | | | 100.00 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | | 0.7090 | | 0.4106 | Note 46 |
| | | | | | | | | Total/year 1 | | | | | | |
| Area with crop, ha | | | | | | | | 1.04 | 1.35 | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | | | 1.04 | | | 7.60 | | 4.84 | Note 51 |

SUMMARY N FIXATION FOR N CROP

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N CHAIN STARTING WITH | NO MANURE | | | TO PRODUCE | CLOVER GRASS WITHOUT MANURE FOR | HIGH N CROP | | | | | | Note 43 |
| AND CONTINUING WITH | GREEN MANURE HIGH N | | | TO PRODUCE | WINTER WHEAT FOR | CATTLE DAIRY | | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | 675 | 15.14 | 92 | 159 | 88 | 121 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | 1838 | 41.19 | 18 | | 18 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0036 | 0.0036 | TOTAL N AMOUNTS IN KG AND % LEACHED | | 1949 | 43.67 | 49 | | 15 | | Note 45 |
| | TOTAL | 0.0389 | 0.0296 | TOTAL N AMOUNTS IN KG AND % | | 4462 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | 0.2354 | | 0.1789 | Note 46 |
| | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | 71.28 | 4.17 | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | 71.28 | | | 230 | | 192 | Note 51 |

| | | |
|---|---|---|
| N amount in reference crop year 2 after use of N crop as green manure, kg | 1839.82 | Note 47 |
| N amount in reference crop year 1 after synthetic N fertilizer, kg | 71.29 | Note 47 |
| Relative value of green manure, % | 2580.69 | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N CHAIN STARTING WITH | NO MANURE | | | TO PRODUCE | CLOVER GRASS WITHOUT MANURE FOR | LOW N CROP | | | | | | Note 43 |
| AND CONTINUING WITH | GREEN MANURE LOW N | | | TO PRODUCE | WINTER WHEAT FOR | CATTLE DAIRY | | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | 372 | 8.65 | 78 | 154 | 73 | 106 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | 1474 | 34.26 | 15 | | 15 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0036 | 0.0036 | TOTAL N AMOUNTS IN KG AND % LEACHED | | 2456 | 57.09 | 61 | | 18 | | Note 45 |
| | TOTAL | 0.0378 | 0.0259 | TOTAL N AMOUNTS IN KG AND % | | 4303 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | 0.4150 | | 0.2843 | Note 46 |
| | | | | | | | Total/year 1 | | | | | |
| Area with crop, ha | | | | | | 54.10 | 3.17 | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | 54.10 | | | 209 | | 160 | Note 51 |

| | | |
|---|---|---|
| N amount in reference crop year 2 after use of N crop as green manure, kg | 1051.32 | Note 47 |
| N amount in reference crop year 1 after synthetic N fertilizer, kg | 71.29 | Note 47 |
| Relative value of green manure, % | 1474.68 | |

SUMMARY FOOD, FUEL, AND N+N FIXATION FOR FODDER AND FOOD

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER WHEAT FOR | | FOOD | | | | | | Note 43 |
| AND CONTINUING WITH | NO MANURE | | | TO PRODUCE | NOTHING FOR | | FOOD | | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | 64.27 | 64.27 | 1.49 | 2.35 | 1.25 | 1.52 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | 2.20 | 2.20 | 0.02 | | 0.02 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0366 | 0.0236 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | 33.53 | 33.53 | 0.84 | | 0.25 | | Note 45 |
| | TOTAL | 0.0366 | 0.0236 | TOTAL N AMOUNTS IN KG AND % | | | 100.00 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | 0.0366 | | 0.0236 | Note 46 |
| | | | | | | | Total/year 1 | | | | | | |
| Area with crop, ha | | | | | | 0.64 | 1.00 | | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | 0.64 | | | | 2.99 | | 2.16 | Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | WINTER WHEAT FOR | | FUEL | | | | | | Note 43 |
| AND CONTINUING WITH | NO MANURE | | | TO PRODUCE | NOTHING FOR | | FUEL | | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | 64.27 | 64.27 | 1.49 | 2.35 | 1.25 | 1.52 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | 2.20 | 2.20 | 0.02 | | 0.02 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0366 | 0.0236 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | 33.53 | 33.53 | 0.84 | | 0.25 | | Note 45 |
| | TOTAL | 0.0366 | 0.0236 | TOTAL N AMOUNTS IN KG AND % | | | 100.00 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | 0.0366 | | 0.0236 | Note 46 |
| | | | | | | | Total/year 1 | | | | | | |
| Area with crop, ha | | | | | | 0.64 | 1.00 | | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | 0.64 | | | | 2.99 | | 2.16 | Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | CLOVER GRASS FOR | | CATTLE DAIRY | | | | | | Note 43 |
| AND CONTINUING WITH | LIQUID CATTLE MANURE | | | TO PRODUCE | CLOVER GRASS FOR | | CATTLE DAIRY | | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | 35879 | 38.64 | 1552 | 2500 | 1746 | 2252 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | 31724 | 34.16 | 317 | | 317 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0162 | 0.0186 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | 25256 | 27.20 | 631 | | 189 | | Note 45 |
| | TOTAL | 2.1400 | 1.9279 | TOTAL N AMOUNTS IN KG AND % | | | 92859 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | 0.0697 | | 0.0628 | Note 46 |
| | | | | | | | Total/year 1 | | | | | | |
| Area with crop, ha | | | | | | 1007.57 | 206.55 | | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | 1007.57 | | | | 3508 | | 3260 | Note 51 |
| N CHAIN STARTING WITH | N FERTILIZER | | | TO PRODUCE | CLOVER GRASS FOR | | CATTLE DAIRY | | | | | | Note 43 |
| AND CONTINUING WITH | LIQUID CATTLE MANURE | | | TO PRODUCE | CLOVER GRASS FOR | | CATTLE DAIRY | | | | | | Note 43 |
| Total N | RATIO OF N2O-N TO N IN FIRST CROP | | | TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED | | | 13002 | 57.06 | 300 | 462 | 332 | 419 | Note 45 |
| Year N NH3 | ACCORDING TO | IPCC 1996 | IPCC 2006 | TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 | | | 5463 | 23.97 | 55 | | 55 | | Note 45 |
| 1-10 N leach | FIRST YEAR | 0.0162 | 0.0186 | TOTAL N AMOUNTS IN KG AND % LEACHED | | | 4322 | 18.97 | 108 | | 32 | | Note 45 |
| | TOTAL | 0.3957 | 0.3586 | TOTAL N AMOUNTS IN KG AND % | | | 22787 | 100.00 | | | | | Note 45 |
| N2O-N/N in food/beverage/fuel/other | | | | | | | | | | 0.0356 | | 0.0322 | Note 46 |
| | | | | | | | Total/year 1 | | | | | | |
| Area with crop, ha | | | | | | 208.01 | 42.64 | | | | | | Note 50 |
| Natural background emissions, kg N2O-N/ha: | | | | | | 208.01 | | | | 670 | | 627 | Note 51 |

SUMMARY CATTLE

| RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO | IPCC 1996 MIN | IPCC 1996 MAX | IPCC 2006 MIN | IPCC 2006 MAX |
|---|---|---|---|---|
| FIRST YEAR | 0.0310 | 0.0446 | 0.0236 | 0.0347 |
| TOTAL | 0.0519 | 0.0786 | 0.0372 | 0.0557 |

| N2O-N emission IPCC 1996 MIN | MAX | N2O-N emission IPCC 2006 MIN | MAX |
|---|---|---|---|
| 3.70 | 5.60 | 2.65 | 3.97 |

| N2O-N/N in food/beverage/fuel/other | MIN | MAX | MIN | MAX |
|---|---|---|---|---|
| | 0.1318 | 0.2475 | 0.0991 | 0.1753 |

| Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha: | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX |
|---|---|---|---|---|---|---|---|---|
| | 0.95 | 1.20 | 0.95 | 1.27 | 4.87 | 6.59 | 3.59 | 4.95 |

SUMMARY PIGS

| RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO | IPCC 1996 MIN | IPCC 1996 MAX | IPCC 2006 MIN | IPCC 2006 MAX |
|---|---|---|---|---|
| FIRST YEAR | 0.0311 | 0.0415 | 0.0232 | 0.0315 |
| TOTAL | 0.0448 | 0.0664 | 0.0312 | 0.0478 |

| N2O-N emission IPCC 1996 MIN | MAX | N2O-N emission IPCC 2006 MIN | MAX |
|---|---|---|---|
| 3.2 | 4.74 | 2.22 | 3.41 |

| N2O-N/N in food/beverage/fuel/other | MIN | MAX | MIN | MAX |
|---|---|---|---|---|
| | 0.0822 | 0.1205 | 0.0611 | 0.0867 |

| Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha: | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX |
|---|---|---|---|---|---|---|---|---|
| | 0.90 | 1.06 | 0.90 | 1.06 | 4.25 | 5.75 | 3.12 | 4.42 |

SUMMARY POULTRY

| RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO | IPCC 1996 MIN | IPCC 1996 MAX | IPCC 2006 MIN | IPCC 2006 MAX |
|---|---|---|---|---|
| FIRST YEAR | 0.0307 | 0.0450 | 0.0226 | 0.0351 |
| TOTAL | 0.0428 | 0.0793 | 0.0282 | 0.0562 |

| N2O-N emission IPCC 1996 MIN | MAX | N2O-N emission IPCC 2006 MIN | MAX |
|---|---|---|---|
| 3.05 | 5.65 | 2.01 | 4 |

| N2O-N/N in food/beverage/fuel/other | MIN | MAX | MIN | MAX |
|---|---|---|---|---|
| | 0.0688 | 0.2569 | 0.0497 | 0.1820 |

| Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha: | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX |
|---|---|---|---|---|---|---|---|---|
| | 0.84 | 1.14 | 0.84 | 1.14 | 4.03 | 6.63 | 2.86 | 4.99 |

SUMMARY SHEEP AND GOATS

| RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO | IPCC 1996 MIN | IPCC 1996 MAX | IPCC 2006 MIN | IPCC 2006 MAX |
|---|---|---|---|---|
| FIRST YEAR | 0.0457 | 0.0479 | 0.0199 | 0.0289 |
| TOTAL | 0.0777 | 0.0920 | 0.0396 | 0.0533 |

| N2O-N emission IPCC 1996 MIN | MAX | N2O-N emission IPCC 2006 MIN | MAX |
|---|---|---|---|
| 5.54 | 6.56 | 2.83 | 3.8 |

| N2O-N/N in food/beverage/fuel/other | MIN | MAX | MIN | MAX |
|---|---|---|---|---|
| | 0.4363 | 0.7090 | 0.2102 | 0.4106 |

| Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha: | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX |
|---|---|---|---|---|---|---|---|---|
| | 1.02 | 1.11 | 1.02 | 1.11 | 6.57 | 7.66 | 3.85 | 4.84 |

SUMMARY FODDER

| RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO | IPCC 1996 MIN | IPCC 1996 MAX | IPCC 2006 MIN | IPCC 2006 MAX |
|---|---|---|---|---|
| FIRST YEAR | 0.0307 | 0.0479 | 0.0199 | 0.0351 |
| TOTAL | 0.0428 | 0.0920 | 0.0282 | 0.0562 |

| N2O-N emission IPCC 1996 MIN | MAX | N2O-N emission IPCC 2006 MIN | MAX |
|---|---|---|---|
| 3.05 | 6.56 | 2.01 | 4.00 |

| N2O-N/N in food/beverage/fuel/other | MIN | MAX | MIN | MAX |
|---|---|---|---|---|
| | 0.0688 | 0.7090 | 0.0497 | 0.4106 |

| Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha: | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX |
|---|---|---|---|---|---|---|---|---|
| | 0.84 | 1.20 | 0.84 | 1.27 | 4.03 | 7.66 | 2.86 | 4.99 |