

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

Year Fertilizer/manure Or- Nnorm Crop Cereal Straw Crop Fuel/ Fuel/ N2O-N emission N2O-N emission
 # Store Amounts ganic propor # benefit used use & #71/ bev other IPCC 1996 IPCC 2006
 Name 1/0 Store Field 1/0 Name 1/0 leach 1/0 Name Fed Food #72 #8 #9 # Total Each Total Each Total

RATIO OF N2O-N TO N IN FIRST CROP TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED												
Total N	13.8											
Year N NH3	13.7											
1-10 N leach	72.5											
TOTAL												
TOTAL N AMOUNTS IN KG AND % LEACHED												
100.0												

N2O-N in food/beverage/fuel/other 0.1632 Note 46

Year	N	1	100.0	100.0	0	100	119	0	0	97.8	21	40.0	11.8	0.0	0.0	0.0	28.2	1.41	2.90	1.27	1.75	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WWHB	1.000	NO	57.8	Cattle	0.84	0.0	0.0	0.0	2.3	0.04	0.0125	0.04	0.0100	Note 48
	N leach		1.022	1.000	ORG	1.00	1.000	0.591	0.0	57.8	Dairy	2	13.3	Liquid	0.0	0.0	2.3	1.45	0.0010	0.43	0.0050	Note 49
Year	N	21	26.4	25.8	0	100	11	0	0	19.3	21	7.2	1.7	0.0	0.0	0.0	5.5	0.28	0.66	0.25	0.42	Note 47
2	Vol/NH3	Cattle	YES	0.6	6.4	NON	100.00	WWH	1.000	NO	12.1	Cattle	0.67	0.0	0.0	0.0	0.4	0.07	0.0125	0.07	0.0100	Note 48
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	12.1	Dairy	2	2.6	Liquid	0.0	0.0	0.0	0.30	0.0010	0.09	0.0050	Note 49
Year	N	21	5.2	5.0	0	100	11	0	0	3.8	21	1.4	0.3	0.0	0.0	0.0	1.1	0.05	0.13	0.05	0.08	Note 47
3	Vol/NH3	Cattle	YES	0.1	1.3	NON	100.00	WWH	1.000	NO	2.4	Cattle	0.67	0.0	0.0	0.0	0.1	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	2.4	Dairy	2	0.5	Liquid	0.0	0.0	0.0	0.06	0.0010	0.02	0.0050	Note 49
Year	N	21	1.0	1.0	0	100	1	0	0	0.7	21	0.3	0.1	0.0	0.0	0.0	0.2	0.01	0.03	0.01	0.02	Note 47
4	Vol/NH3	Cattle	YES	0.0	0.2	NON	100.00	SBA	1.000	NO	0.5	Cattle	0.65	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.5	Dairy	2	0.1	Liquid	0.0	0.0	0.0	0.01	0.0010	0.00	0.0050	Note 49
Year	N	21	0.2	0.2	0	100	10	0	0	0.1	21	0.1	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	Note 47
5	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	NO	0.1	Cattle	0.66	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.1	Dairy	2	0.0	Liquid	0.0	0.0	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	21	0.0	0.0	0	100	119	0	0	0.0	21	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	Cattle	YES	0.0	0.0	NON	100.00	WWHB	1.000	NO	0.0	Cattle	0.84	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Dairy	2	0.0	Liquid	0.0	0.0	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	21	0.0	0.0	0	100	11	0	0	0.0	21	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	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	NO	0.0	Cattle	0.67	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Dairy	2	0.0	Liquid	0.0	0.0	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	21	0.0	0.0	0	100	11	0	0	0.0	21	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	Cattle	0.67	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Dairy	2	0.0	Liquid	0.0	0.0	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	21	0.0	0.0	0	100	1	0	0	0.0	21	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	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	NO	0.0	Cattle	0.65	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Dairy	2	0.0	Liquid	0.0	0.0	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	21	0.0	0.0	0	100	10	0	0	0.0	21	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	Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	NO	0.0	Cattle	0.66	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Dairy	2	0.0	Liquid	0.0	0.0	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	Year 10	Total	Total/year 1
Area with crop, ha	0.64	0.15	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.82	1.30

Possible additional non IPCC N2O-N emissions Value
 N residues emissions, ratio of N2O-N to N: 0.0000
 Increased soil N emissions, kg N2O-N/ha: 0.00
 Natural background emissions, kg N2O-N/ha: 1.00

Total IPCC and non IPCC N2O 3.72
 Total anthropogenic 3.72
 Total including natural 4.55

Note 51 2.27 Note 51
 Note 51 2.27 Note 51
 Note 51 3.09 Note 51

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

Year Fertilizer/manure Or- Nnorm Crop Crop Straw Cereal use & Fuel/ other N2O-N emission
Store Amounts ganic propor # use & #71/ bev #72 #8 #9 IPCC 1996
Name 1/0 Store Field 1/0 1/0 Name 1/0 leach 1/0 Name Fed Food #72 #8 #9 # Name mounts Each Total

Table with 10 columns: Year, N, NH3, N leach, etc. Summary rows: TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED, TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3, TOTAL N AMOUNTS IN KG AND % LEACHED.

N2O-N/N in food/beverage/fuel/other

Main table with 10 rows (Year 1-10) and 10 columns (Year 1-10). Includes values for N, NH3, N leach, and N2O-N/N ratios. Summary rows for Year 1-10 totals.

Year Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.64 0.13 0.02 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.80 1.26

Possible additional non IPCC N2O-N emissions Value
N residues emissions, ratio of N2O-N to N: 0.0000
Increased soil N emissions, kg N2O-N/ha: 0.00
Natural background emissions, kg N2O-N/ha: 1.00

Total IPCC and non IPCC N2O 4.01
Total anthropogenic 4.01
Total including natural 4.81

Kind of source
Current crops 0.00
Total anthropogenic 0.00
Total including natural 0.80

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CEREAL Straw Crop Crop Fuel/ Fuel/ N2O-N emission
 AND CONTINUING WITH CATTLE DEEP LITTER TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR MANURE Final N2O-N emission
 CATTLE DAIRY CATTLE DAIRY handling N a- IPCC 1996
 # Store Amounts 1/0 Field 1/0 Or-ganic 1/0 Nnorm # Crop use & leach use # Uses #21-61 Food #72 #71/ bev #8 #9 other #9 Total Each Total

Year	Fertilizer/manure #	Store 1/0	Amounts 1/0	Field 1/0	Or-ganic 1/0	Nnorm #	Crop	Straw used 1/0	Cereal benefit 1/0	Use #	Food #72	bev #8	other #9	Manure #	Final N a-	Total	Each	Total
RATIO OF N2O-N TO N IN FIRST CROP TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED ACCORDING TO IPCC 1996 IPCC 2006 FIRST YEAR 0.0851 0.0437 TOTAL 0.1057 0.0561 TOTAL N AMOUNTS IN KG AND % LEACHED TOTAL N AMOUNTS IN KG AND %																		
Year 1	1	1	100.0	100.0	2.2 NON	100.0	119	0	1.000 NO	97.8 Cattle	40.0	11.8	0.0	0.0	23	28.2	1.92	3.40
Year 2	23	1	30.7	21.5	5.4 NON	100.0	11	0	1.000 NO	16.1 Dairy	3.9	0.9	0.0	23	3.0	0.28	0.74	
Year 3	23	1	3.2	2.3	0.6 NON	100.0	11	0	1.000 NO	1.7 Dairy	0.4	0.1	0.0	23	0.3	0.03	0.08	
Year 4	23	1	0.3	0.2	0.1 NON	100.0	1	0	1.000 NO	1.3 Dairy	0.67	0.0	0.0	23	0.0	0.02	0.125	
Year 5	23	1	0.0	0.0	0.0 NON	100.0	10	0	1.000 NO	0.1 Dairy	0.65	0.0	0.0	23	0.0	0.00	0.01	
Year 6	23	1	0.0	0.0	0.0 NON	100.0	119	0	1.000 NO	0.1 Dairy	0.66	0.0	0.0	23	0.0	0.00	0.0125	
Year 7	23	1	0.0	0.0	0.0 NON	100.0	11	0	1.000 NO	0.0 Dairy	0.84	0.0	0.0	23	0.0	0.00	0.0125	
Year 8	23	1	0.0	0.0	0.0 NON	100.0	11	0	1.000 NO	0.0 Dairy	0.67	0.0	0.0	23	0.0	0.00	0.0125	
Year 9	23	1	0.0	0.0	0.0 NON	100.0	1	0	1.000 NO	0.0 Dairy	0.65	0.0	0.0	23	0.0	0.00	0.0125	
Year 10	23	1	0.0	0.0	0.0 NON	100.0	10	0	1.000 NO	0.0 Dairy	0.66	0.0	0.0	23	0.0	0.00	0.0125	
Year 11	23	1	0.0	0.0	0.0 NON	100.0	1000	0	1.000 NO	0.0 Dairy	2	0.0	0.0	23	0.0	0.00	0.0125	

N2O-N in food/beverage/fuel/other 0.3297

Year	Vol/NH3	N	YES	100.0	100.0	119	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 1	1	1	100.0	100.0	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 2	23	1	30.7	21.5	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 3	23	1	3.2	2.3	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 4	23	1	0.3	0.2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 5	23	1	0.0	0.0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 6	23	1	0.0	0.0	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 7	23	1	0.0	0.0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 8	23	1	0.0	0.0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 9	23	1	0.0	0.0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 10	23	1	0.0	0.0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 11	23	1	0.0	0.0	1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.64 0.08 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.73 1.14

Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha:

Total IPCC and non IPCC N2O 4.23
 Total anthropogenic 4.23
 Total including natural 4.95
 Note 51 2.24
 Note 51 2.24
 Note 51 2.97
 Note 50

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CATTLE DAIRY Note 43
 AND CONTINUING WITH MANURE FROM GRAZING CATTLE TO PRODUCE CATTLE DAIRY Note 43

Year Fertilizer/manure N crop Food/ Fuel/ Manure Final N2O-N emission
 # Store Amounts #71/ bev other handling N a- IPCC 1996
 Name 1/0 Store Field 1/0 Or- Nnorm Crop Cereal Straw Crop use & # Uses #21-61 N2O-N emission
 1/0 1/0 1/0 1/0 ganic propor # benefit used 1/0 leach Name Fed Food #72 #8 #9 # Name mounts Each Total Each Total

Total N		RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED										13.2		2.47		4.58		2.15			
Year	N/NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3										4.5	4.5	0.04		0.04		0.62			
1-10	N leach	0.0855	0.0541	TOTAL N AMOUNTS IN KG AND % LEACHED										82.3	82.3	2.06							
TOTAL		0.1144		0.0704		TOTAL N AMOUNTS IN KG AND %										100.0		100.0					

N2O-N/N in food/beverage/fuel/other 0.3470 0.2135 Note 46

Year	N	1	100.0	100.0	0	100	119	0	0	97.8	21	40.0	11.8	0.0	0.0	0.0	24	28.2	1.95	3.42	1.71	2.16	Note 47
1	Vol/NH3	N	YES	2.2	NON	100.00	WWHB	1.000	NO	57.8	Cattle	0.84					0.0	Cattle	0.02	0.125	0.02	0.0100	Note 48
	N leach	1.022	1.000	ORG	1.00	1.000		0.591	0.0	57.8	Dairy	2	13.3	Graz					1.45	0.0200	0.43	0.0200	Note 49
Year	N	24	1	28.2	0	100	11	0	0	26.2	21	5.1	1.2	0.0	0.0	0.0	24	3.9	0.45	1.00	0.38	0.56	Note 47
2	Vol/NH3	Cattle	YES	2.0	NON	100.00	WWH	1.000	NO	21.1	Cattle	0.67					0.0	Cattle	0.02	0.125	0.02	0.0100	Note 48
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	21.1	Dairy	2	3.6	Graz					0.53	0.0200	0.16	0.0200	Note 49
Year	N	24	1	3.9	0	100	11	0	0	3.6	21	0.7	0.2	0.0	0.0	0.0	24	0.5	0.06	0.14	0.05	0.08	Note 47
3	Vol/NH3	Cattle	YES	0.3	NON	100.00	WWH	1.000	NO	2.9	Cattle	0.67					0.0	Cattle	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	2.9	Dairy	2	0.5	Graz					0.07	0.0200	0.02	0.0200	Note 49
Year	N	24	1	0.5	0	100	1	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
4	Vol/NH3	Cattle	YES	0.0	NON	100.00	SBA	1.000	NO	0.4	Cattle	0.65					0.0	Cattle	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	0.4	Dairy	2	0.1	Graz					0.01	0.0200	0.00	0.0200	Note 49
Year	N	24	1	0.1	0	100	10	0	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
5	Vol/NH3	Cattle	YES	0.0	NON	100.00	WBA	1.000	NO	0.1	Cattle	0.66					0.0	Cattle	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	0.1	Dairy	2	0.0	Graz					0.00	0.0200	0.00	0.0200	Note 49
Year	N	24	1	0.0	0	100	119	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
6	Vol/NH3	Cattle	YES	0.0	NON	100.00	WWHB	1.000	NO	0.0	Cattle	0.84					0.0	Cattle	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	0.0	Dairy	2	0.0	Graz					0.00	0.0200	0.00	0.0200	Note 49
Year	N	24	1	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	NON	100.00	WWH	1.000	NO	0.0	Cattle	0.67					0.0	Cattle	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	0.0	Dairy	2	0.0	Graz					0.00	0.0200	0.00	0.0200	Note 49
Year	N	24	1	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	NON	100.00	WWH	1.000	NO	0.0	Cattle	0.67					0.0	Cattle	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	0.0	Dairy	2	0.0	Graz					0.00	0.0200	0.00	0.0200	Note 49
Year	N	24	1	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	NON	100.00	SBA	1.000	NO	0.0	Cattle	0.65					0.0	Cattle	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	0.0	Dairy	2	0.0	Graz					0.00	0.0200	0.00	0.0200	Note 49
Year	N	24	1	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	NON	100.00	WBA	1.000	NO	0.0	Cattle	0.66					0.0	Cattle	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	0.0	Dairy	2	0.0	Graz					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 Year 10 Total Total/year 1

Area with crop, ha 0.64 0.08 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.74 1.16 Note 50

Possible additional non IPCC N2O-N emissions Value
 N residues emissions, ratio of N2O-N to N: 0.0000
 Increased soil N emissions, kg N2O-N/ha: 0.00
 Natural background emissions, kg N2O-N/ha: 1.00
 Total IPCC and non IPCC N2O: 4.58
 Total anthropogenic: 4.58
 Total including natural: 5.31
 Note 51
 Note 51
 Note 51
 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CATTLE BEEF Note 43
AND CONTINUING WITH LIQUID CATTLE MANURE TO PRODUCE CATTLE BEEF Note 43

Year Fertilizer/manure Store Amounts Field 1/0 Or-ganic 1/0 Nnorm propor # Crop use & leach Straw used 1/0 Cereal benefit 1/0 N crop Food/ #71/ bev #72 #8 Fuel/ other #9 Manure Final handling N a- # Name mounts N2O-N emission IPCC 1996 N2O-N emission IPCC 2006 Total Each Total Note 44
Name 1/0 Store Amounts Field 1/0 Or-ganic 1/0 Nnorm propor # Crop use & leach Straw used 1/0 Cereal benefit 1/0 N crop Food/ #71/ bev #72 #8 Fuel/ other #9 Manure Final handling N a- # Name mounts N2O-N emission IPCC 1996 N2O-N emission IPCC 2006 Total Each Total Note 44

Total N	RATIO OF N2O-N TO N IN FIRST CROP																
Year N NH3	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED																
1-10 N leach	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3																
	TOTAL N AMOUNTS IN KG AND % LEACHED																
	TOTAL N AMOUNTS IN KG AND %																
	IPCC 1996	IPCC 2006	12.4	12.3	1.78	3.77	1.61	2.31	Note 45								
FIRST YEAR	0.0727	0.0440	14.4	14.3	0.14	0.14	0.14	0.14	Note 45								
TOTAL	0.0943	0.0578	73.7	73.3	1.84	1.84	0.55	0.55	Note 45								
			100.5	100.0													

N2O-N in food/beverage/fuel/other 0.3047 0.1866 Note 46

Year N	1	100.0	100.0	0	100	119	0	0	97.8	22	40.0	10.4	0.0	0.0	0.0	21	29.6	1.28	2.91	1.42	2.91	1.28	1.76	Note 47
1	Vol/NH3 N	YES	0.0	2.2	NON	100.00	WWHB	1.000	NO	1.000	NO	0.84	0.0	0.0	0.0	0.0	Cattle	2.4	0.05	0.0125	0.05	0.0100	Note 48	
	N leach	1.022	1.000	ORG	1.00	1.000	0.591	0.0	57.8	Beef	2	13.3	Liquid	0.0	1.45	0.0010	0.43	0.0050	Note 49					
Year N	2	21	1	27.7	0	100	11	0	20.3	22	7.6	1.6	0.0	0.0	0.0	21	6.0	0.26	0.69	0.29	0.69	0.26	0.44	Note 47
2	Vol/NH3 Cattle	YES	0.6	6.8	NON	100.00	WWH	1.000	NO	1.000	NO	0.67	0.0	0.0	0.0	0.0	Cattle	0.5	0.08	0.0125	0.08	0.0100	Note 48	
	N leach	0.933	1.016	ORG	1.00	1.000	0.627	0.0	12.7	Beef	2	2.8	Liquid	0.0	0.32	0.0010	0.10	0.0050	Note 49					
Year N	3	21	1	5.6	5.5	0	100	11	4.1	22	1.5	0.3	0.0	0.0	0.0	21	1.2	0.05	0.14	0.06	0.14	0.05	0.09	Note 47
3	Vol/NH3 Cattle	YES	0.1	1.4	NON	100.00	WWH	1.000	NO	1.000	NO	0.67	0.0	0.0	0.0	0.0	Cattle	0.1	0.02	0.0125	0.02	0.0100	Note 48	
	N leach	0.933	1.016	ORG	1.00	1.000	0.627	0.0	2.6	Beef	2	0.6	Liquid	0.0	0.06	0.0010	0.02	0.0050	Note 49					
Year N	4	21	1	1.1	1.1	0	100	1	0.8	22	0.3	0.1	0.0	0.0	0.0	21	0.2	0.01	0.03	0.01	0.03	0.01	0.02	Note 47
4	Vol/NH3 Cattle	YES	0.0	0.3	NON	100.00	SBA	1.000	NO	1.000	NO	0.65	0.0	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48	
	N leach	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.5	Beef	2	0.1	0.0	0.0	0.0	0.0	Liquid	0.0	0.01	0.0010	0.00	0.0050	Note 49	
Year N	5	21	1	0.2	0.2	0	100	10	0.2	22	0.1	0.0	0.0	0.0	0.0	21	0.1	0.00	0.01	0.00	0.01	0.00	0.00	Note 47
5	Vol/NH3 Cattle	YES	0.0	0.1	NON	100.00	WBA	1.000	NO	1.000	NO	0.66	0.0	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48	
	N leach	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.1	Beef	2	0.0	0.0	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49	
Year N	6	21	1	0.0	0.0	0	100	119	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3 Cattle	YES	0.0	0.0	NON	100.00	WWHB	1.000	NO	1.000	NO	0.84	0.0	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48	
	N leach	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Beef	2	0.0	0.0	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49	
Year N	7	21	1	0.0	0.0	0	100	11	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	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	1.000	NO	0.67	0.0	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48	
	N leach	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Beef	2	0.0	0.0	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49	
Year N	8	21	1	0.0	0.0	0	100	11	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	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	1.000	NO	0.67	0.0	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48	
	N leach	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Beef	2	0.0	0.0	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49	
Year N	9	21	1	0.0	0.0	0	100	1	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	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	1.000	NO	0.65	0.0	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48	
	N leach	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Beef	2	0.0	0.0	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49	
Year N	10	21	1	0.0	0.0	0	100	10	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	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	1.000	NO	0.66	0.0	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48	
	N leach	0.933	1.016	ORG	1.00	1.000	0.627	0.0	0.0	Beef	2	0.0	0.0	0.0	0.0	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 Year 10 Total Total/year 1
Area with crop, ha 0.64 0.16 0.03 0.01 0.00 0.00 0.00 0.00 0.00 0.84 1.31 Note 50

Possible additional non IPCC N2O-N emissions Value
N residues emissions, ratio of N2O-N to N: 0.0000
Increased soil N emissions, kg N2O-N/ha: 0.00
Natural background emissions, kg N2O-N/ha: 1.00
Kind of source
0.00 Current crops
0.00 Total anthropogenic
0.84 Total including natural
Total IPCC and non IPCC N2O 3.77
2.31 Note 51
2.31 Note 51
3.15 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE
 AND CONTINUING WITH SEPARATED CATTLE MANURE TO PRODUCE TO PRODUCE

Year	Fertilizer/manure #	Store 1/0	Amounts Field 1/0	Or-ganic 1/0	Nnorm propor 1/0	Crop #	Cereal benefit 1/0	Straw used 1/0	use & leach	Use #	Food Fed	N crop #71/ #72	Fuel/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
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Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED														
Year	N/NH3	1-10	N leach	IPCC 1996	IPCC 2006	100.0	0	100	119	1000	NO	0	0	0	97.8	22	40.0	10.4	0.0	0.0	0.0	0.0	22	29.6	12.1

N2O-N/N in food/beverage/fuel/other

Year 1	N/NH3	1	100.0	0.0791	0.0439	2.2	NON	100.00	WWHB	1.000	NO	0	0	0	57.8	Cattle	0.84	0.84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.6	12.1	
Year 1	N leach	1.022	1.000	0.1019	0.0574	26.1	ORG	1.00	1.000	0.591	0.0	0	0	0	57.8	Beef	2	2	13.3	13.3	13.3	13.3	13.3	0.0	0.0	1.5	0.04	
Year 2	N/NH3	22	28.6	0.0791	0.0439	6.5	NON	100.00	WWH	1.000	NO	0	0	0	19.6	Cattle	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.25	
Year 2	N leach	0.867	1.016	0.1019	0.0574	4.8	ORG	1.00	1.000	0.653	0.0	0	0	0	12.8	Beef	2	2	2.7	2.7	2.7	2.7	2.7	0.0	0.0	0.3	0.09	
Year 3	N/NH3	22	5.2	0.0791	0.0439	1.2	NON	100.00	WWH	1.000	NO	0	0	0	3.6	Cattle	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.05	
Year 3	N leach	0.867	1.016	0.1019	0.0574	1.2	ORG	1.00	1.000	0.653	0.0	0	0	0	2.3	Beef	2	2	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.02	
Year 4	N/NH3	22	0.9	0.0791	0.0439	0.9	NON	100.00	SBA	1.000	NO	0	0	0	0.6	Cattle	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.01	
Year 4	N leach	0.867	1.016	0.1019	0.0574	0.2	ORG	1.00	1.000	0.653	0.0	0	0	0	0.4	Beef	2	2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.00	
Year 5	N/NH3	22	0.0	0.0791	0.0439	0.0	NON	100.00	WBA	1.000	NO	0	0	0	0.1	Cattle	0.66	0.66	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Year 5	N leach	0.867	1.016	0.1019	0.0574	0.0	ORG	1.00	1.000	0.653	0.0	0	0	0	0.1	Beef	2	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
Year 6	N/NH3	22	0.0	0.0791	0.0439	0.0	NON	100.00	WWHB	1.000	NO	0	0	0	0.0	Cattle	0.84	0.84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Year 6	N leach	0.867	1.016	0.1019	0.0574	0.0	ORG	1.00	1.000	0.653	0.0	0	0	0	0.0	Beef	2	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
Year 7	N/NH3	22	0.0	0.0791	0.0439	0.0	NON	100.00	WWH	1.000	NO	0	0	0	0.0	Cattle	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Year 7	N leach	0.867	1.016	0.1019	0.0574	0.0	ORG	1.00	1.000	0.653	0.0	0	0	0	0.0	Beef	2	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
Year 8	N/NH3	22	0.0	0.0791	0.0439	0.0	NON	100.00	WWH	1.000	NO	0	0	0	0.0	Cattle	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Year 8	N leach	0.867	1.016	0.1019	0.0574	0.0	ORG	1.00	1.000	0.653	0.0	0	0	0	0.0	Beef	2	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
Year 9	N/NH3	22	0.0	0.0791	0.0439	0.0	NON	100.00	SBA	1.000	NO	0	0	0	0.0	Cattle	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Year 9	N leach	0.867	1.016	0.1019	0.0574	0.0	ORG	1.00	1.000	0.653	0.0	0	0	0	0.0	Beef	2	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
Year 10	N/NH3	22	0.0	0.0791	0.0439	0.0	NON	100.00	WBA	1.000	NO	0	0	0	0.0	Cattle	0.66	0.66	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Year 10	N leach	0.867	1.016	0.1019	0.0574	0.0	ORG	1.00	1.000	0.653	0.0	0	0	0	0.0	Beef	2	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1
Area with crop, ha	0.64	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.81	1.27
Possible additional non IPCC N2O-N emissions	Value	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.08
N residues emissions, ratio of N2O-N to N:	Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.08
Increased soil N emissions, kg N2O-N/ha:	Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.08
Natural background emissions, kg N2O-N/ha:	Value	1.00	0.64	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.81	4.89
Total IPCC and non IPCC N2O												4.08
Total												2.30

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CEREAL Straw Crop Fuel/ other
 AND CONTINUING WITH CATTLE DEEP LITTER TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR CATTLE BEEF

Year Fertilizer/manure Or- Nnorm Crop Cereal Straw Crop Fuel/ other
 # Store Amounts ganic propor # benefit used use & #71/ bev #9
 Name 1/0 Store Field 1/0 Name 1/0 Name Name Fed Food #72 #8 #72 #8 #9

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED														
Year N NH3	1	1	100.0	100.0	0	100	119	0	0	97.8	22	40.0	10.4	0.0	0.0	0.0	23	29.6	1.95	2.28	4.30	1.52	2.28	2.28	Note 45
1-10 N leach	1.022	1.000	0.0	0.0	2.2	NON	100.00	WWHB	1.000	NO	57.8	Cattle	0.84	0.0	0.0	0.0	0.0	1.8	0.04	0.21	0.21	0.21	0.21	0.21	Note 45
Year 1	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Beef	2	0.0	0.0	13.3	Deep	0.0	1.45	0.200	0.43	0.54	0.54	Note 45	
Year 2	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Beef	2	0.0	0.0	13.3	Deep	0.0	1.45	0.200	0.43	0.54	0.54	Note 45	
Year 3	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Beef	2	0.0	0.0	13.3	Deep	0.0	1.45	0.200	0.43	0.54	0.54	Note 45	
Year 4	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Beef	2	0.0	0.0	13.3	Deep	0.0	1.45	0.200	0.43	0.54	0.54	Note 45	
Year 5	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Beef	2	0.0	0.0	13.3	Deep	0.0	1.45	0.200	0.43	0.54	0.54	Note 45	
Year 6	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Beef	2	0.0	0.0	13.3	Deep	0.0	1.45	0.200	0.43	0.54	0.54	Note 45	
Year 7	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Beef	2	0.0	0.0	13.3	Deep	0.0	1.45	0.200	0.43	0.54	0.54	Note 45	
Year 8	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Beef	2	0.0	0.0	13.3	Deep	0.0	1.45	0.200	0.43	0.54	0.54	Note 45	
Year 9	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Beef	2	0.0	0.0	13.3	Deep	0.0	1.45	0.200	0.43	0.54	0.54	Note 45	
Year 10	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Beef	2	0.0	0.0	13.3	Deep	0.0	1.45	0.200	0.43	0.54	0.54	Note 45	
N leach	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Beef	2	0.0	0.0	13.3	Deep	0.0	1.45	0.200	0.43	0.54	0.54	Note 45	

N2O-N in food/beverage/fuel/other

Year N	1	1	100.0	100.0	0	100	119	0	0	97.8	22	40.0	10.4	0.0	0.0	0.0	23	29.6	1.95	2.28	4.30	1.52	2.28	2.28	Note 46
Year 1	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Cattle	0.84	0.0	0.0	0.0	0.0	1.8	0.04	0.125	1.28	1.28	1.28	1.28	Note 47
Year 2	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Cattle	0.84	0.0	0.0	0.0	0.0	1.8	0.04	0.125	1.28	1.28	1.28	1.28	Note 47
Year 3	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Cattle	0.84	0.0	0.0	0.0	0.0	1.8	0.04	0.125	1.28	1.28	1.28	1.28	Note 47
Year 4	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Cattle	0.84	0.0	0.0	0.0	0.0	1.8	0.04	0.125	1.28	1.28	1.28	1.28	Note 47
Year 5	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Cattle	0.84	0.0	0.0	0.0	0.0	1.8	0.04	0.125	1.28	1.28	1.28	1.28	Note 47
Year 6	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Cattle	0.84	0.0	0.0	0.0	0.0	1.8	0.04	0.125	1.28	1.28	1.28	1.28	Note 47
Year 7	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Cattle	0.84	0.0	0.0	0.0	0.0	1.8	0.04	0.125	1.28	1.28	1.28	1.28	Note 47
Year 8	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Cattle	0.84	0.0	0.0	0.0	0.0	1.8	0.04	0.125	1.28	1.28	1.28	1.28	Note 47
Year 9	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Cattle	0.84	0.0	0.0	0.0	0.0	1.8	0.04	0.125	1.28	1.28	1.28	1.28	Note 47
Year 10	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Cattle	0.84	0.0	0.0	0.0	0.0	1.8	0.04	0.125	1.28	1.28	1.28	1.28	Note 47
N leach	23	1	32.2	9.7	22.6	0	100	11	0.591	0.0	57.8	Cattle	0.84	0.0	0.0	0.0	0.0	1.8	0.04	0.125	1.28	1.28	1.28	1.28	Note 47

Year Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.64 0.08 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.73 1.15 Note 50

Possible additional non IPCC N2O-N emissions Value
 N residues emissions, ratio of N2O-N to N: 0.0000
 Increased soil N emissions, kg N2O-N/ha: 0.00
 Natural background emissions, kg N2O-N/ha: 1.00
 Total IPCC and non IPCC N2O: 4.30
 Total anthropogenic: 4.30
 Total including natural: 5.03
 Note 51
 2.28 Note 51
 2.28 Note 51
 3.01 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CATTLE BEEF Note 43
 AND CONTINUING WITH MANURE FROM GRAZING CATTLE TO PRODUCE CATTLE BEEF Note 43

Year Fertilizer/manure N crop Food/ Fuel/ Manure Final N2O-N emission N2O-N emission
 # Store Amounts #71/ bev other handling N a- IPCC 1996 IPCC 2006
 Name 1/0 Store Field 1/0 Or- Nnorm Crop Crop use & # Uses #21-61 Food #72 #8 #9 # Name mounts Each Total Each Total

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED														
Year N NH3	IPCC 1996					IPCC 2006					TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3					TOTAL N AMOUNTS IN KG AND % LEACHED									
1-10 N leach	0.0862	0.0548	0.0721	0.0862	0.0548	0.0721	0.0862	0.0548	0.0721	0.0862	0.0548	0.0721	0.0862	0.0548	0.0721	0.0862	0.0548	0.0721	0.0862	0.0548	0.0721	0.0862	0.0548	0.0721	0.0862
TOTAL	0.1168	0.0721	0.0721	0.1168	0.0721	0.0721	0.1168	0.0721	0.0721	0.1168	0.0721	0.0721	0.1168	0.0721	0.0721	0.1168	0.0721	0.0721	0.1168	0.0721	0.0721	0.1168	0.0721	0.0721	0.1168

N2O-N in food/beverage/fuel/other 0.3994 0.2465 Note 46

Year N	1	100.0	100.0	0	100	119	0	0	97.8	22	40.0	10.4	0.0	0.0	0.0	24	29.6	1.98	3.45	1.74	2.21	4.67	2.53	4.67	2.21	4.67
1	Vol/NH3 N	YES	0.0	2.2	NON	100.00	WWHB	1.000	NO	1.000	NO	0.84	0.0	0.0	0.0	0.0	0.0	0.02	0.0125	0.02	0.0125	0.05	0.05	0.05	0.05	0.05
	N leach	1.022	1.000	ORG	1.00	1.000	0.591	0.0	57.8	Beef	2	13.3	Graz	0.0	0.0	0.0	0.0	1.45	0.0200	0.43	0.0200	2.09	2.09	2.09	2.09	2.09
Year 2	Vol/NH3 Cattle	YES	0.0	29.6	0	100	11	0	27.5	22	5.3	1.1	0.0	0.0	24	4.2	0.0	0.48	0.105	0.41	0.105	0.41	0.41	0.41	0.41	0.41
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	1.000	NO	1.000	NO	0.67	0.0	0.0	0.0	0.0	0.0	0.02	0.0125	0.02	0.0125	0.05	0.05	0.05	0.05	0.05
Year 3	Vol/NH3 Cattle	YES	0.0	4.2	0	100	11	0	3.9	22	0.8	0.2	0.0	0.0	24	0.6	0.0	0.07	0.15	0.06	0.15	0.06	0.06	0.06	0.06	0.06
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	1.000	NO	1.000	NO	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0125	0.08	0.08	0.08	0.08	0.08
Year 4	Vol/NH3 Cattle	YES	0.0	0.3	NON	100.00	WWH	1.000	NO	1.000	NO	0.86	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0125	0.01	0.01	0.01	0.01	0.01
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	1.000	NO	1.000	NO	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0125	0.02	0.02	0.02	0.02	0.02
Year 5	Vol/NH3 Cattle	YES	0.0	0.6	0	100	1	0	0.6	22	0.1	0.0	0.0	0.0	24	0.1	0.0	0.01	0.02	0.00	0.02	0.01	0.01	0.01	0.01	0.01
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	1.000	NO	1.000	NO	0.66	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0125	0.01	0.01	0.01	0.01	0.01
Year 6	Vol/NH3 Cattle	YES	0.0	0.1	0	100	10	0	0.1	22	0.0	0.0	0.0	0.0	24	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	1.000	NO	1.000	NO	0.66	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0125	0.00	0.00	0.00	0.00	0.00
Year 7	Vol/NH3 Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	NO	1.000	NO	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0125	0.00	0.00	0.00	0.00	0.00
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	1.000	NO	1.000	NO	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0125	0.00	0.00	0.00	0.00	0.00
Year 8	Vol/NH3 Cattle	YES	0.0	0.0	0	100	11	0	0.0	22	0.0	0.0	0.0	0.0	24	0.0	0.0	0.00	0.0125	0.00	0.0125	0.00	0.00	0.00	0.00	0.00
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	1.000	NO	1.000	NO	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0125	0.00	0.00	0.00	0.00	0.00
Year 9	Vol/NH3 Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	NO	1.000	NO	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0125	0.00	0.00	0.00	0.00	0.00
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	1.000	NO	1.000	NO	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0125	0.00	0.00	0.00	0.00	0.00
Year 10	Vol/NH3 Cattle	YES	0.0	0.0	0	100	10	0	0.0	22	0.0	0.0	0.0	0.0	24	0.0	0.0	0.00	0.0125	0.00	0.0125	0.00	0.00	0.00	0.00	0.00
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	1.000	NO	1.000	NO	0.66	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0125	0.00	0.00	0.00	0.00	0.00

Year Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.64 0.09 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.74 1.16 Note 50

Possible additional non IPCC N2O-N emissions Value
 N residues emissions, ratio of N2O-N to N: 0.0000
 Increased soil N emissions, kg N2O-N/ha: 0.00
 Natural background emissions, kg N2O-N/ha: 1.00

Total IPCC and non IPCC N2O 4.67 4.67 5.41 2.88 Note 51 2.88 Note 51 3.62 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CEREAL TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND PIG PORK
 AND CONTINUING WITH SEPARATED PIG MANURE TO PRODUCE WINTER WHEAT FOR MANURE handling N a- IPCC 1996 N2O-N emission
 Year Fertilizer/manure # Store Amounts Field 1/0 Or-ganic 1/0 Nnorm propor # Name 1/0 Crop use & leach Straw used 1/0 Use # Name Fed Food #72 #71/ bevs other #9 Fuel/ #8 #9 Final N a- IPCC 2006 Total Each Total

Year	Fertilizer/manure #	Store	Amounts	Field 1/0	Or-ganic 1/0	Nnorm propor #	Name 1/0	Crop use & leach	Straw used 1/0	Use #	Name	Fed	Food #72	#71/ bevs	other #9	Fuel/ #8	Final N a- IPCC 1996	N2O-N emission	
RATIO OF N2O-N TO N IN FIRST CROP TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED ACCORDING TO IPCC 1996 IPCC 2006 FIRST YEAR 0.0775 0.0434 TOTAL 0.0901 0.0514 TOTAL N AMOUNTS IN KG AND % LEACHED TOTAL N AMOUNTS IN KG AND %																			
Year 1	1	1	100.0	100.0	2.2 NON	100.00	WWHB	1.000	NO	0	0	0	0	0	0	0	0	0	0
Year 2	32	1	19.5	15.4	0	100	11	0	0	0	0	0	0	0	0	0	0	0	0
Year 3	32	1	2.0	1.5	0	100	11	0	0	0	0	0	0	0	0	0	0	0	0
Year 4	32	1	0.4	0.4	NON	100.00	WWH	1.000	NO	0	0	0	0	0	0	0	0	0	0
Year 5	32	1	0.0	0.0	NON	100.00	SBA	1.000	NO	0	0	0	0	0	0	0	0	0	0
Year 6	32	1	0.0	0.0	NON	100.00	WBA	1.000	NO	0	0	0	0	0	0	0	0	0	0
Year 7	32	1	0.0	0.0	NON	100.00	WWH	1.000	NO	0	0	0	0	0	0	0	0	0	0
Year 8	32	1	0.0	0.0	NON	100.00	WWH	1.000	NO	0	0	0	0	0	0	0	0	0	0
Year 9	32	1	0.0	0.0	NON	100.00	SBA	1.000	NO	0	0	0	0	0	0	0	0	0	0
Year 10	32	1	0.0	0.0	NON	100.00	WBA	1.000	NO	0	0	0	0	0	0	0	0	0	0

Year	N	Vol/NH3	N	leach	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1	Total/year 10	Total/year 10 Total	
Year 1	1	1	100.0	100.0	0	100	119	0	0	0	0	0	0	0	0	0	0	0	0
Year 2	32	1	19.5	15.4	0	100	11	0	0	0	0	0	0	0	0	0	0	0	0
Year 3	32	1	2.0	1.5	0	100	11	0	0	0	0	0	0	0	0	0	0	0	0
Year 4	32	1	0.4	0.4	NON	100.00	WWH	1.000	NO	0	0	0	0	0	0	0	0	0	0
Year 5	32	1	0.0	0.0	NON	100.00	WBA	1.000	NO	0	0	0	0	0	0	0	0	0	0
Year 6	32	1	0.0	0.0	NON	100.00	WWH	1.000	NO	0	0	0	0	0	0	0	0	0	0
Year 7	32	1	0.0	0.0	NON	100.00	WWH	1.000	NO	0	0	0	0	0	0	0	0	0	0
Year 8	32	1	0.0	0.0	NON	100.00	WWH	1.000	NO	0	0	0	0	0	0	0	0	0	0
Year 9	32	1	0.0	0.0	NON	100.00	SBA	1.000	NO	0	0	0	0	0	0	0	0	0	0
Year 10	32	1	0.0	0.0	NON	100.00	WBA	1.000	NO	0	0	0	0	0	0	0	0	0	0

Year	Area with crop, ha	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1
Year	Area with crop, ha	0.64	0.08	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	1.15
Possible additional non IPCC N2O-N emissions	Value	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N residues emissions, ratio of N2O-N to N:	Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Increased soil N emissions, kg N2O-N/ha:	Value	1.00	0.64	0.08	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.73	1.15
Natural background emissions, kg N2O-N/ha:	Value	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 IPCC and non IPCC N2O 3.61
 Total anthropogenic 3.61
 Total including natural 4.33
 Note 43
 Note 44
 Note 45
 Note 46
 Note 47
 Note 48
 Note 49
 Note 50
 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE
 AND CONTINUING WITH PIG DEEP LITTER TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR PIG PORK

Year	Fertilizer/manure #	Store 1/0	Amounts Store 1/0	Field	Or-ganic 1/0	Nnorm propor-tion, %	Crop #	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use #	Food Fed	N crop #71/ #72	Fuel/other #9	Fuel/ be v #8	Manure handling #	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total		
Total N	1	1	100.0	100.0	2.2 NON	0	100	119	0	0	97.8 Pig	40.0	16.7	0.0	0.0	33	18.1	17.7	1.90	3.71	1.35	2.03
Year 1-10 N leach			0.0	0.0	1.022	1.000	1.000	1.000	1.000	NO	57.8 Pig	0.84	0.84	0.0	0.0	0.0	20.2	19.8	0.20	0.20	0.20	0.20
Year 1	33	1	19.7	11.8	0	100	11	0	0	0	57.8 Pork	3	3	0.0	13.3	0.0	64.1	62.6	1.60	0.48	0.48	0.48
Year 2	33	1	7.9	3.0	NON	100.0	WWH	1.000	NO	0	5.8 Pig	0.67	0.67	0.0	0.0	33	0.4	0.4	0.11	0.11	0.11	0.11
Year 3	33	1	1.5	0.9	0	100	11	0	0	0	5.8 Pork	3	3	0.0	1.2	0.0	0.0	0.0	0.04	0.04	0.04	0.04
Year 4	33	1	0.6	0.2	NON	100.0	WWH	1.000	NO	0	0.4 Pig	0.67	0.67	0.0	0.0	33	0.1	0.1	0.01	0.01	0.01	0.01
Year 5	33	1	1.127	0.1	0	100	1	1	0	0	0.4 Pork	3	3	0.0	0.1	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Year 6	33	1	1.127	0.0	NON	100.0	SBA	1.000	NO	0	0.0 Pig	0.65	0.65	0.0	0.0	33	0.0	0.0	0.00	0.00	0.00	0.00
Year 7	33	1	1.127	0.0	0	100	10	0	0	0	0.0 Pork	3	3	0.0	0.0	33	0.0	0.0	0.00	0.00	0.00	0.00
Year 8	33	1	1.127	0.0	NON	100.0	WBA	1.000	NO	0	0.0 Pig	0.66	0.66	0.0	0.0	33	0.0	0.0	0.00	0.00	0.00	0.00
Year 9	33	1	1.127	0.0	0	100	119	0	0	0	0.0 Pork	3	3	0.0	0.0	33	0.0	0.0	0.00	0.00	0.00	0.00
Year 10	33	1	1.127	0.0	NON	100.0	WWH	1.000	NO	0	0.0 Pig	0.84	0.84	0.0	0.0	33	0.0	0.0	0.00	0.00	0.00	0.00
Total	33	1	1.127	0.0	0	100	11	0	0	0	0.0 Pork	3	3	0.0	0.0	33	0.0	0.0	0.00	0.00	0.00	0.00
Total	33	1	1.127	0.0	NON	100.0	WWH	1.000	NO	0	0.0 Pig	0.67	0.67	0.0	0.0	33	0.0	0.0	0.00	0.00	0.00	0.00
Total	33	1	1.127	0.0	0	100	1	1	0	0	0.0 Pork	3	3	0.0	0.0	33	0.0	0.0	0.00	0.00	0.00	0.00

TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED

TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3

TOTAL N AMOUNTS IN KG AND % LEACHED

TOTAL N AMOUNTS IN KG AND %

Year	N	1	100.0	100.0	2.2 NON	0	100	119	0	0	97.8 Pig	40.0	16.7	0.0	0.0	33	23.3	1.74	3.26	1.23	1.75
Year 1	33	1	1.022	1.000	ORG	1.000	WWHB	1.000	NO	0	57.8 Pig	0.84	0.84	0.0	0.0	0.0	5.8	0.08	0.125	0.08	0.100
Year 2	33	1	7.9	11.8	0	100	11	0	0	0	57.8 Pork	3	3	0.0	13.3	0.0	0.0	1.45	0.0200	0.43	0.0050
Year 3	33	1	1.5	0.9	0	100	11	0	0	0	5.8 Pig	0.67	0.67	0.0	0.0	33	1.8	0.15	0.41	0.11	0.27
Year 4	33	1	0.6	0.2	NON	100.0	WWH	1.000	NO	0	5.8 Pork	3	3	0.0	1.2	0.0	0.4	0.11	0.125	0.11	0.100
Year 5	33	1	1.127	0.1	0	100	1	1	0	0	0.4 Pork	3	3	0.0	0.0	33	0.0	0.14	0.0200	0.04	0.0050
Year 6	33	1	1.127	0.0	NON	100.0	WWH	1.000	NO	0	0.4 Pig	0.67	0.67	0.0	0.0	33	0.1	0.01	0.03	0.01	0.02
Year 7	33	1	1.127	0.0	0	100	1	1	0	0	0.4 Pork	3	3	0.0	0.0	33	0.0	0.01	0.0125	0.01	0.100
Year 8	33	1	1.127	0.0	NON	100.0	SBA	1.000	NO	0	0.0 Pig	0.65	0.65	0.0	0.0	33	0.0	0.01	0.0200	0.00	0.0050
Year 9	33	1	1.127	0.0	0	100	10	0	0	0	0.0 Pork	3	3	0.0	0.0	33	0.0	0.00	0.00	0.00	0.0100
Year 10	33	1	1.127	0.0	NON	100.0	WBA	1.000	NO	0	0.0 Pig	0.66	0.66	0.0	0.0	33	0.0	0.00	0.00	0.00	0.0100
Total	33	1	1.127	0.0	0	100	11	0	0	0	0.0 Pork	3	3	0.0	0.0	33	0.0	0.00	0.0125	0.00	0.0050
Total	33	1	1.127	0.0	NON	100.0	WWH	1.000	NO	0	0.0 Pig	0.67	0.67	0.0	0.0	33	0.0	0.00	0.0200	0.00	0.0050
Total	33	1	1.127	0.0	0	100	1	1	0	0	0.0 Pork	3	3	0.0	0.0	33	0.0	0.00	0.0125	0.00	0.0050

N2O-N in food/beverage/fuel/other

Year 1 0.64 0.06 0.00

Area with crop, ha 1.11

Possible additional non IPCC N2O-N emissions Value 0.0000

N residues emissions, ratio of N2O-N to N: 0.00

Increased soil N emissions, kg N2O-N/ha: 1.00

Natural background emissions, kg N2O-N/ha: 0.00

Total IPCC and non IPCC N2O 3.71

Total anthropogenic 3.71

Total including natural 4.41

Note 50

Note 51 2.03

Note 51 2.03

Note 51 2.74

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE
 AND CONTINUING WITH MANURE FROM ROOTING PIGS WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR PIG PORK

Year	Fertilizer/manure #	Store 1/0	Amounts Store	Field 1/0	Or-ganic 1/0	Nnorm propor 1/0	Crop # Name	Use Name	Fodder: Fed	N crop #71/ bevs #72	Fuel/ other #9	Manure handling # Name	Final N a- mounts	N2O-N emission IPCC 1996	Total	N2O-N emission IPCC 2006	Total		
Total N	RATIO OF N2O-N TO N IN FIRST CROP																		
Year 1-10 N leach	IPCC 1996 IPCC 2006																		
			0.0830		0.0516								19.7	4.1	2.30	1.99	4.25	2.60	
TOTAL		0.1061	0.0651	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED													76.2	1.90	0.57

N2O-N in food/beverage/fuel/other

Year	N	Vol/NH3	N	YES	100.0	100.0	0	100	119	0	0	97.8	32	40.0	16.7	0.0	0.0	0.0	23.3	1.85	3.32	1.61	0.02	0.0125	0.02	0.0100	Note 47	
1	Vol/NH3	N	YES	100.0	100.0	0	100	119	0	0	0	97.8	32	40.0	16.7	0.0	0.0	0.0	23.3	1.85	3.32	1.61	0.02	0.0125	0.02	0.0100	Note 48	
	N leach			2.2	NON	100.00	WWWB	1000	NO	1000	NO	57.8	Pig	0.84					0.0	0.02	0.0125	0.02	0.0125	0.02	0.0100	Note 48		
	Year 2	Vol/NH3	Pig	YES	0.0	23.3	0	100	11	0	0	21.7	32	6.1	2.5	0.0	0.0	0.0	3.5	0.38	0.78	0.32	0.02	0.0125	0.02	0.0100	Note 48	
	N leach	Root		1.6	NON	100.00	WWH	1000	NO	1000	NO	15.6	Pig	0.67					0.0	0.02	0.0125	0.02	0.0125	0.02	0.0100	Note 48		
	Year 3	Vol/NH3	Pig	YES	0.0	3.5	0	100	11	0	0	3.3	32	0.9	0.4	0.0	0.0	0.0	0.5	0.06	0.12	0.05	0.02	0.0125	0.02	0.0100	Note 48	
	N leach	Root		0.2	NON	100.00	WWH	1000	NO	1000	NO	2.4	Pig	0.67					0.0	0.02	0.0125	0.02	0.0125	0.02	0.0100	Note 48		
	Year 4	Vol/NH3	Pig	YES	0.0	0.5	0	100	1	0	0	0.5	32	0.1	0.1	0.0	0.0	0.0	0.1	0.01	0.02	0.01	0.02	0.02	0.0200	Note 49		
	N leach	Root		0.0	NON	100.00	SBA	1000	NO	1000	NO	0.4	Pig	0.65					0.0	0.01	0.0125	0.02	0.0125	0.02	0.0100	Note 48		
	Year 5	Vol/NH3	Pig	YES	0.0	0.1	0	100	10	0	0	0.1	32	0.0	0.0	0.0	0.0	0.0	0.1	0.01	0.0200	0.02	0.0200	0.02	0.0200	Note 49		
	N leach	Root		0.0	NON	100.00	WBA	1000	NO	1000	NO	0.1	Pig	0.66					0.0	0.01	0.0200	0.02	0.0200	0.02	0.0200	Note 47		
	Year 6	Vol/NH3	Pig	YES	0.0	0.0	0	100	119	0	0	0.1	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.00	0.00	0.00	0.00	0.0100	Note 48	
	N leach	Root		0.0	NON	100.00	WBA	1000	NO	1000	NO	0.1	Pork	0.66					0.0	0.00	0.0125	0.00	0.0125	0.00	0.0125	0.00	0.0200	Note 49
	Year 7	Vol/NH3	Pig	YES	0.0	0.0	0	100	11	0	0	0.0	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.00	0.00	0.00	0.00	0.0100	Note 47	
	N leach	Root		0.0	NON	100.00	WWH	1000	NO	1000	NO	0.0	Pig	0.84					0.0	0.00	0.0125	0.00	0.0125	0.00	0.0125	0.00	0.0200	Note 48
	Year 8	Vol/NH3	Pig	YES	0.0	0.0	0	100	11	0	0	0.0	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.00	0.00	0.00	0.00	0.0100	Note 47	
	N leach	Root		0.0	NON	100.00	WWH	1000	NO	1000	NO	0.0	Pig	0.67					0.0	0.00	0.0125	0.00	0.0125	0.00	0.0125	0.00	0.0200	Note 48
	Year 9	Vol/NH3	Pig	YES	0.0	0.0	0	100	1	0	0	0.0	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.00	0.00	0.00	0.00	0.0100	Note 47	
	N leach	Root		0.0	NON	100.00	SBA	1000	NO	1000	NO	0.0	Pig	0.65					0.0	0.00	0.0125	0.00	0.0125	0.00	0.0125	0.00	0.0200	Note 48
	Year 10	Vol/NH3	Pig	YES	0.0	0.0	0	100	10	0	0	0.0	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.00	0.00	0.00	0.00	0.0100	Note 47	
	N leach	Root		0.0	NON	100.00	WBA	1000	NO	1000	NO	0.0	Pig	0.66					0.0	0.00	0.0125	0.00	0.0125	0.00	0.0125	0.00	0.0200	Note 48

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Area with crop, ha	0.64	0.10	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.19
Possible additional non IPCC N2O-N emissions	Value										
N residues emissions, ratio of N2O-N to N:	0.0000										
Increased soil N emissions, kg N2O-N/ha:	0.00										
Natural background emissions, kg N2O-N/ha:	1.00										
Total IPCC and non IPCC N2O	4.25										
Total anthropogenic	4.25										
Total including natural	5.00										
Note 50	Note 51										

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE
 AND CONTINUING WITH LIQUID POULTRY MANURE TO PRODUCE

Year Fertilizer/manure Store Amounts Field Name 1/0 Store 1/0 Or-ganic 1/0 Nnorm propor # Ncrop Food/ #71/ bev #72/ #8 Fuel/ other #9 Manure Final handling N a- # Name mounts N2O-N emission IPCC 1996 IPCC 2006 Total Each Total

TOTAL N		RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED									
Year	N NH3	IPCC 1996		IPCC 2006		TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		TOTAL N AMOUNTS IN KG AND % LEACHED		TOTAL N AMOUNTS IN KG AND %		23.0		9.7		23.0		9.7			
1-10	N leach	0.0723	0.0849	0.0427	0.0504							67.3		67.3		100.0		100.0			
TOTAL												100.0		100.0		100.0		100.0			

N2O-N in food/beverage/fuel/other

Year	N	1	100.0	100.0	0	100	119	0	0	97.8	42	40.0	20.4	0.0	0.0	0.0	41	19.6	1.41	2.89	1.23	1.71	Note 47
1	Vol/NH3	N YES	0.0	0.0	2.2	NON	100.00	WWHB	1.000	NO	57.8	Poultry	0.84	0.0	0.0	0.0	41	2.0	0.04	0.125	0.04	0.0100	Note 48
Year	N	leach	1.022	1.000	ORG	1.00	1.000	0.591	0.0	57.8	Meat	4	13.3	Liquid	0.0	1.45	0.0010	0.0	1.45	0.0010	0.43	0.0050	Note 49
2	Vol/NH3	Poultry YES	0.4	17.6	17.3	0	100	11	0	13.0	0.0	4.5	2.3	0.0	0.0	0.0	41	2.2	0.19	0.45	0.16	0.27	Note 47
Year	N	leach	1.000	1.000	ORG	1.00	1.000	1.000	NO	8.5	Poultry	0.67	0.67	0.0	0.0	0.0	41	0.2	0.05	0.125	0.05	0.0100	Note 48
3	Vol/NH3	Liquid YES	2.0	2.0	1.9	0	100	11	0	8.5	Meat	4	0.5	0.0	0.0	0.0	41	0.0	0.21	0.0010	0.06	0.0050	Note 49
Year	N	leach	1.000	1.000	ORG	1.00	1.000	1.000	NO	1.0	Poultry	0.67	0.67	0.0	0.0	0.0	41	0.0	0.01	0.125	0.01	0.0100	Note 48
4	Vol/NH3	Liquid YES	0.2	0.2	0.2	0	100	1	0	0.2	42	0.1	0.0	0.0	0.0	0.0	41	0.0	0.02	0.0010	0.01	0.0050	Note 49
Year	N	leach	1.000	1.000	ORG	1.00	1.000	1.000	NO	0.1	Poultry	0.65	0.65	0.0	0.0	0.0	41	0.0	0.00	0.125	0.00	0.0100	Note 48
5	Vol/NH3	Liquid YES	1.000	1.000	ORG	1.00	1.000	1.000	NO	0.1	Meat	4	0.0	0.0	0.0	0.0	41	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	leach	1.000	1.000	ORG	1.00	1.000	1.000	NO	0.0	0.0	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	Liquid YES	0.0	0.0	0.0	NON	100.00	WBA	1.000	NO	0.0	0.66	0.66	0.0	0.0	0.0	41	0.0	0.00	0.125	0.00	0.0100	Note 48
Year	N	leach	1.000	1.000	ORG	1.00	1.000	1.000	NO	0.0	Meat	4	0.0	0.0	0.0	0.0	41	0.0	0.00	0.0010	0.00	0.0050	Note 49
7	Vol/NH3	Liquid YES	1.000	1.000	ORG	1.00	1.000	1.000	NO	0.0	0.0	0.84	0.84	0.0	0.0	0.0	41	0.0	0.00	0.125	0.00	0.0050	Note 48
Year	N	leach	1.000	1.000	ORG	1.00	1.000	1.000	NO	0.0	Meat	4	0.0	0.0	0.0	0.0	41	0.0	0.00	0.0010	0.00	0.0050	Note 49
8	Vol/NH3	Liquid YES	0.0	0.0	0.0	NON	100.00	WWH	1.000	NO	0.0	0.67	0.67	0.0	0.0	0.0	41	0.0	0.00	0.125	0.00	0.0100	Note 48
Year	N	leach	1.000	1.000	ORG	1.00	1.000	1.000	NO	0.0	Meat	4	0.0	0.0	0.0	0.0	41	0.0	0.00	0.0010	0.00	0.0050	Note 49
9	Vol/NH3	Liquid YES	0.0	0.0	0.0	NON	100.00	SBA	1.000	NO	0.0	0.65	0.65	0.0	0.0	0.0	41	0.0	0.00	0.125	0.00	0.0100	Note 48
Year	N	leach	1.000	1.000	ORG	1.00	1.000	1.000	NO	0.0	Meat	4	0.0	0.0	0.0	0.0	41	0.0	0.00	0.0010	0.00	0.0050	Note 49
10	Vol/NH3	Liquid YES	0.0	0.0	0.0	NON	100.00	WBA	1.000	NO	0.0	0.66	0.66	0.0	0.0	0.0	41	0.0	0.00	0.125	0.00	0.0100	Note 48
Year	N	leach	1.000	1.000	ORG	1.00	1.000	1.000	NO	0.0	Meat	4	0.0	0.0	0.0	0.0	41	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 Year 10 Total Total/year 1

Area with crop, ha 0.64 0.09 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.74 1.17 Note 50

Possible additional non IPCC N2O-N emissions Value 0.0000 Kind of source Total IPCC and non IPCC N2O

N residues emissions, ratio of N2O-N to N: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 3.40 2.02 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 0.00 0.00 0.00 0.00 0.00 0.00 0.00 3.40 2.02 Note 51

Natural background emissions, kg N2O-N/ha: 1.00 0.64 0.09 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.74 Total including natural 4.14 2.76 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND FUEL/ other #9 POULTRY MEAT Note 43
AND CONTINUING WITH POULTRY DEEP LITTER TO PRODUCE WINTER WHEAT FOR POULTRY MEAT Note 43

Year Fertilizer/manure # Store Amounts Field 1/0 Or-ganic 1/0 Nnorm propor tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 N crop Food/ #71/ #72 #73 #74 #75 #76 #77 #78 #79 Fuel/ bevs other #9 Manure handling # Name Final N a-mounts N2O-N emission IPCC 1996 Total Each Total N2O-N emission IPCC 2006 Total Each Total Note 44 Note 44 Note 44

Table with 10 columns: Year, N, NH3, N leach, etc. Includes sub-headers for 'RATIO OF N2O-N TO N IN FIRST CROP' and 'TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED'. Rows include data for years 1-10 and totals.

N2O-N/N in food/beverage/fuel/other

Main data table with 10 columns: Year, N, NH3, N leach, etc. Rows 1-10 show annual data for various crop types (Poultry, Deep, etc.) and their associated N and N2O-N values.

Year Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.64 0.04 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.67 1.06

Possible additional non IPCC N2O-N emissions Value 0.0000
N residues emissions, ratio of N2O-N to N: 0.00
Increased soil N emissions, kg N2O-N/ha: 1.00
Natural background emissions, kg N2O-N/ha:

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE
 AND CONTINUING WITH MANURE FROM SCRAPING POULTRY TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR POULTRY MEAT

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor 1/0 Crop # N crop Food/ #71/ bev #72/ #8 Fuel/ other #9 Manure handling # Final N a- mounts Total N2O-N emission IPCC 1996 Total Each N2O-N emission IPCC 2006 Total Each

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED									
Year 1-10 N leach	IPCC 1996										IPCC 2006									
	0.0812										0.0498									
TOTAL	0.0997										0.0600									

N2O-N in food/beverage/fuel/other

Year	N	Vol/NH3	N	YES	100.0	100.0	0	100	119	0	0	97.8	42	40.0	20.4	0.0	0.0	0.0	19.6	22.4	22.4	3.99	1.81	2.40	1.81	2.40	
1	Vol/NH3	N	YES	100.0	100.0	0	100	119	0	0	97.8	42	40.0	20.4	0.0	0.0	0.0	0.0	19.6	22.4	22.4	3.99	1.81	2.40	1.81	2.40	
	N leach			2.2	NON	100.00	WWHB	1000	NO	1000	NO	57.8	Poultry	0.84				0.0	Poultry	44	44	0.02	0.04	0.02	0.04	0.02	0.04
	Year			19.6	0	100	11	0	0	0	18.2	42	3.5	1.8	0.0	0.0	0.0	0.0	13.3	Scrap	0.0	1.45	0.200	0.43	0.200	0.43	0.200
2	Vol/NH3	Poultry	YES	100.0	100.00	WWHB	1000	NO	1000	NO	14.7	Poultry	0.67					0.0	Poultry	44	44	0.01	0.0125	0.01	0.0125	0.01	0.0125
	N leach	Scrap	0.484	1.000	1.000	0	0	0	0	0	14.7	Meat	4	0.3	0.2	0.0	0.0	0.0	2.5	Scrap	0.0	0.37	0.0200	0.11	0.0200	0.11	0.0200
3	Vol/NH3	Poultry	YES	100.0	100.00	WWHB	1000	NO	1000	NO	1.3	Poultry	0.67					0.0	Poultry	44	44	0.02	0.06	0.02	0.06	0.02	0.06
	N leach	Scrap	0.484	1.000	1.000	0	0	0	0	0	1.3	Meat	4	0.67	0.0	0.0	0.0	0.0	0.2	Scrap	0.0	0.03	0.0125	0.00	0.0125	0.00	0.0125
4	Vol/NH3	Poultry	YES	100.0	100.00	SBA	1000	NO	1000	NO	0.1	Poultry	0.65					0.0	Poultry	44	44	0.00	0.01	0.00	0.00	0.00	0.01
	N leach	Scrap	0.484	1.000	1.000	0	0	0	0	0	0.1	Meat	4	0.65	0.0	0.0	0.0	0.0	0.0	Scrap	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0125
5	Vol/NH3	Poultry	YES	100.0	100.00	WBA	1000	NO	1000	NO	0.0	Poultry	0.66					0.0	Poultry	44	44	0.00	0.00	0.00	0.00	0.00	0.00
	N leach	Scrap	0.484	1.000	1.000	0	0	0	0	0	0.0	Meat	4	0.66	0.0	0.0	0.0	0.0	0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	0.00	0.0200
6	Vol/NH3	Poultry	YES	100.0	100.00	WWHB	1000	NO	1000	NO	0.0	Poultry	0.84					0.0	Poultry	44	44	0.00	0.00	0.00	0.00	0.00	0.00
	N leach	Scrap	0.484	1.000	1.000	0	0	0	0	0	0.0	Meat	4	0.84	0.0	0.0	0.0	0.0	0.0	Scrap	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0125
7	Vol/NH3	Poultry	YES	100.0	100.00	WWHB	1000	NO	1000	NO	0.0	Poultry	0.67					0.0	Poultry	44	44	0.00	0.00	0.00	0.00	0.00	0.00
	N leach	Scrap	0.484	1.000	1.000	0	0	0	0	0	0.0	Meat	4	0.67	0.0	0.0	0.0	0.0	0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	0.00	0.0200
8	Vol/NH3	Poultry	YES	100.0	100.00	WWHB	1000	NO	1000	NO	0.0	Poultry	0.67					0.0	Poultry	44	44	0.00	0.00	0.00	0.00	0.00	0.00
	N leach	Scrap	0.484	1.000	1.000	0	0	0	0	0	0.0	Meat	4	0.67	0.0	0.0	0.0	0.0	0.0	Scrap	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0125
9	Vol/NH3	Poultry	YES	100.0	100.00	SBA	1000	NO	1000	NO	0.0	Poultry	0.65					0.0	Poultry	44	44	0.00	0.00	0.00	0.00	0.00	0.00
	N leach	Scrap	0.484	1.000	1.000	0	0	0	0	0	0.0	Meat	4	0.65	0.0	0.0	0.0	0.0	0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	0.00	0.0200
10	Vol/NH3	Poultry	YES	100.0	100.00	WBA	1000	NO	1000	NO	0.0	Poultry	0.66					0.0	Poultry	44	44	0.00	0.00	0.00	0.00	0.00	0.00
	N leach	Scrap	0.484	1.000	1.000	0	0	0	0	0	0.0	Meat	4	0.66	0.0	0.0	0.0	0.0	0.0	Scrap	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0125

Year Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.64 0.06 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.70 1.10

Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha: 0.64
 Total IPCC and non IPCC N2O 3.99
 Total anthropogenic 3.99
 Total including natural 4.69
 Note 51 2.40
 Note 51 2.40
 Note 51 3.10

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH LIQUID POULTRY MANURE TO PRODUCE TO PRODUCE
 WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR POULTRY EGGS

Year	Fertilizer/manure #	Store Name	Store 1/0	Field 1/0	Or-ganic 1/0	Nnorm propor 1/0	Crop # Name	Straw used 1/0	Fuel/Food/Fed Name	Fuel/other #8	Manure handling # Name	Final N a- mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
Total N	1	100.0	100.0	0	100	119	0	0	43	9.6	41	11.7	1.77	3.76
Year 1-10 N leach	YES	0.0	2.2 NON	0	100.00	WWHB	1.000	NO	0.84	0.0	Poultry	30.4	0.15	2.29
	1.022	1.000	26.8	0	100	11	0	0	4	13.3	Liquid	3.0	0.15	1.59
	27.3	0.5	6.7 NON	100.00	WWH	1.000	NO	0.67	7.0	0.0	41	5.3	1.84	0.15
	0.867	1.000	4.7	0	100	11	0	0	4	2.7	Liquid	0.0	0.55	0.55
	4.8	0.1	1.2 NON	100.00	WWH	1.000	NO	0.67	1.2	0.0	41	0.9		
	0.867	1.000	0.8	0	100	1	0	0	4	0.5	Liquid	0.1		
	1.000	1.000	0.2 NON	100.00	SBA	1.000	NO	0.65	0.65	0.0	41	0.2		
	0.867	1.000	0.1	0	100	10	0	0	4	0.1	Liquid	0.0		
	1.000	1.000	0.0	0	100	1000	NO	0.66	0.66	0.0	41	0.0		
	0.867	1.000	0.0	0	100	1000	NO	0.65	0.65	0.0	41	0.0		
	1.000	1.000	0.0	0	100	119	NO	0.84	0.84	0.0	41	0.0		
	0.867	1.000	0.0	0	100	1000	NO	0.67	0.67	0.0	41	0.0		
	1.000	1.000	0.0	0	100	11	NO	0.67	0.67	0.0	41	0.0		
	0.867	1.000	0.0	0	100	1000	NO	0.65	0.65	0.0	41	0.0		
	1.000	1.000	0.0	0	100	1000	NO	0.66	0.66	0.0	41	0.0		
	0.867	1.000	0.0	0	100	1000	NO	0.67	0.67	0.0	41	0.0		
	1.000	1.000	0.0	0	100	1000	NO	0.65	0.65	0.0	41	0.0		
	0.867	1.000	0.0	0	100	10	NO	0.65	0.65	0.0	41	0.0		
	1.000	1.000	0.0	0	100	1000	NO	0.66	0.66	0.0	41	0.0		
	0.867	1.000	0.0	0	100	1000	NO	0.67	0.67	0.0	41	0.0		
	1.000	1.000	0.0	0	100	1000	NO	0.65	0.65	0.0	41	0.0		
	0.867	1.000	0.0	0	100	1000	NO	0.66	0.66	0.0	41	0.0		
	1.000	1.000	0.0	0	100	1000	NO	0.67	0.67	0.0	41	0.0		

N2O-N in food/beverage/fuel/other

Year	N	1	2	3	4	5	6	7	8	9	10	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Year 1	Total/year 1	
Year 1	Voi/NH3 N leach	1.022	1.000	26.8	0	100	11	0	43	9.6	41	30.4	1.42	2.91	0.05	0.125	1.77	3.76	1.59	0.15	2.29	0.15	0.55	1.84	0.15	1.84
Year 2	Voi/NH3 N leach	0.867	1.000	4.7	0	100	11	0	43	0.3	41	0.9	0.05	0.12	0.01	0.125	0.33	0.0010	0.10	0.0050	0.08	0.0100	0.0050	0.01	0.0050	0.01
Year 3	Voi/NH3 N leach	0.867	1.000	1.2	0	1000	WWH	1.000	NO	0.67	2.3 Poultry	0.1	0.06	0.0010	0.02	0.01	0.0010	0.01	0.0100	0.01	0.0100	0.0050	0.02	0.01	0.0010	0.01
Year 4	Voi/NH3 N leach	0.867	1.000	0.8	0	100	1	0	43	0.2	41	0.2	0.01	0.02	0.01	0.02	0.01	0.0010	0.02	0.0050	0.08	0.0100	0.02	0.01	0.0010	0.02
Year 5	Voi/NH3 N leach	0.867	1.000	0.2	0	1000	SBA	1.000	NO	0.65	0.4 Poultry	0.0	0.01	0.0010	0.00	0.0010	0.01	0.0010	0.00	0.0050	0.01	0.0050	0.00	0.00	0.0010	0.00
Year 6	Voi/NH3 N leach	0.867	1.000	0.1	0	100	10	0	43	0.0	41	0.0	0.00	0.00	0.00	0.00	0.00	0.0010	0.00	0.0050	0.01	0.0050	0.00	0.00	0.0010	0.00
Year 7	Voi/NH3 N leach	0.867	1.000	0.0	0	1000	WBA	1.000	NO	0.66	0.0 Poultry	0.0	0.00	0.00	0.00	0.00	0.00	0.0010	0.00	0.0050	0.01	0.0050	0.00	0.00	0.0010	0.00
Year 8	Voi/NH3 N leach	0.867	1.000	0.0	0	100	119	NO	0.84	0.0	41	0.0	0.00	0.00	0.00	0.00	0.00	0.0010	0.00	0.0050	0.01	0.0050	0.00	0.00	0.0010	0.00
Year 9	Voi/NH3 N leach	0.867	1.000	0.0	0	100	1000	NO	0.84	0.0	41	0.0	0.00	0.00	0.00	0.00	0.00	0.0010	0.00	0.0050	0.01	0.0050	0.00	0.00	0.0010	0.00
Year 10	Voi/NH3 N leach	0.867	1.000	0.0	0	100	1000	NO	0.67	0.0	41	0.0	0.00	0.00	0.00	0.00	0.00	0.0010	0.00	0.0050	0.01	0.0050	0.00	0.00	0.0010	0.00
Area with crop, ha													0.64	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.81	1.28		1.28
Possible additional non													0.64	0.14	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.81	1.28		1.28

Kind of source Total IPCC and non IPCC N2O
 Value 0.0000 0.0000 1.00
 N residues emissions, ratio of N2O-N to N: 0.00 0.00
 Increased soil N emissions, kg N2O-N/ha: 0.00 0.00
 Natural background emissions, kg N2O-N/ha: 1.00 0.64 0.14 0.03 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.81 Total including natural 4.57
 Note 43 Note 43 Note 44 Note 44 Note 44 Note 45 Note 45 Note 46 Note 47 Note 48 Note 49 Note 50 Note 51 Note 51 Note 51 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND POULTRY EGGS
AND CONTINUING WITH SEPARATED POULTRY MANURE TO PRODUCE WINTER WHEAT FOR POULTRY EGGS

Year Fertilizer/manure Or- Nnorm Crop Straw Crop Fuel/ Fuel/ N2O-N emission N2O-N emission
Store Amounts ganic propor # use & #71/ beav other IPCC 1996 IPCC 2006
Name 1/0 Store Field 1/0 Name 1/0 leach use # Uses #21-61 Food #72 #8 #9 # Name mounts Each Total Each Total

Table with 10 columns: Year, N, NH3, leach, etc. Rows include 'Total N' and 'Year 1-10 N leach' with values for IPCC 1996, IPCC 2006, and various N amounts.

N2O-N in food/beverage/fuel/other

Main data table with 10 columns (Year 1-10) and 10 rows (Year 1-10). Columns include N, NH3, leach, and various N amounts. Rows include 'Year 1' through 'Year 10' with detailed N2O-N emission data.

Summary and notes section. Includes 'Year' and 'Area with crop, ha' rows. Contains notes on 'Possible additional non IPCC N2O-N emissions' and 'N residues emissions, ratio of N2O-N to N'.

N CHAIN STARTING WITH N FERTILIZER N CHAIN STARTING WITH WINTER WHEAT FOR BIOETHANOL AND POULTRY EGGS
 AND CONTINUING WITH POULTRY DEEP LITTER WINTER WHEAT FOR POULTRY EGGS

Year	Fertilizer/manure #	Store 1/0	Amounts Store	Field 1/0	Or-ganic 1/0	Nnorm propor 1/0	Crop #	Straw used 1/0	Use Name	Fodder: Uses #21-61 Fed	N crop #71/ other #9	Fuel/ bev #8	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 2006 Total	Note
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Total N	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED										10.3	10.3		
Year	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3										22.8	22.7
1-10	0.0835	0.0453	TOTAL N AMOUNTS IN KG AND % LEACHED										67.1	66.9
N leach	0.0965	0.0529	TOTAL N AMOUNTS IN KG AND %										100.3	100.0

N2O-N in food/beverage/fuel/other

Year	Vol/NH3	N	100.0	0	100	119	0	0	97.8	43	40.0	9.6	0.0	0.0	0.0	30.4	1.75	3.86	1.39	2.12	Note
1	Vol/NH3	N	YES	2.2	NON	100.00	WWHB	1.000	NO	57.8	Poultry	0.84	0.0	Poultry	12.1	0.14	0.0125	0.23	1.24	1.81	Note 47
	N leach			1.022	1.000	1.000	0.591	0.0	57.8	Eggs	4	13.3	0.0	13.3	0.0	1.45	0.0200	0.50	0.43	0.0100	Note 48
	Year			43	1	18.5	0	0	11.4	43	2.7	0.7	0.0	0.0	2.1	0.18	0.48	0.50	0.43	0.0050	Note 49
	2	Vol/NH3	Poultry	YES	3.2	3.8	NON	100.00	WWH	1.000	0.67	0.0	0.0	0.0	0.0	0.8	0.08	0.0125	0.08	0.1000	Note 48
	N leach		Deep		1.013	1.0	1.000	0.760	0.0	8.7	Eggs	4	1.6	Deep	0.0	0.22	0.0200	0.07	0.0050	0.0050	Note 49
	Year			43	1	1.3	0	0	0.8	43	0.2	0.0	0.0	0.0	0.1	0.01	0.03	0.01	0.02	0.002	Note 47
	3	Vol/NH3	Poultry	YES	0.2	0.3	NON	100.00	WWH	1.000	0.67	0.0	0.0	0.0	0.0	0.1	0.01	0.0125	0.01	0.1000	Note 48
	N leach		Deep		1.013	1.0	1.000	0.760	0.0	0.6	Eggs	4	0.1	Deep	0.0	0.01	0.0200	0.00	0.0050	0.0050	Note 49
	Year			43	1	0.1	0	0	0.1	43	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0.0000	Note 47
	4	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	SBA	1.000	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.1000	Note 48
	N leach		Deep		1.013	1.0	1.000	0.760	0.0	0.0	Eggs	4	0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	0.0050	Note 49
	Year			43	1	0.0	0	0	0.0	43	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0.0000	Note 47
	5	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WBA	1.000	0.66	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.1000	Note 48
	N leach		Deep		1.013	1.0	1.000	0.760	0.0	0.0	Eggs	4	0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	0.0050	Note 49
	Year			43	1	0.0	0	0	0.0	43	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0.0000	Note 47
	6	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWHB	1.000	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.1000	Note 48
	N leach		Deep		1.013	1.0	1.000	0.760	0.0	0.0	Eggs	4	0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	0.0050	Note 49
	Year			43	1	0.0	0	0	0.0	43	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0.0000	Note 47
	7	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.1000	Note 48
	N leach		Deep		1.013	1.0	1.000	0.760	0.0	0.0	Eggs	4	0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	0.0050	Note 49
	Year			43	1	0.0	0	0	0.0	43	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0.0000	Note 47
	8	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.1000	Note 48
	N leach		Deep		1.013	1.0	1.000	0.760	0.0	0.0	Eggs	4	0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	0.0050	Note 49
	Year			43	1	0.0	0	0	0.0	43	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0.0000	Note 47
	9	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	SBA	1.000	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.1000	Note 48
	N leach		Deep		1.013	1.0	1.000	0.760	0.0	0.0	Eggs	4	0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	0.0050	Note 49
	Year			43	1	0.0	0	0	0.0	43	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.0000	0.0000	Note 47
	10	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WBA	1.000	0.66	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.1000	Note 48
	N leach		Deep		1.013	1.0	1.000	0.760	0.0	0.0	Eggs	4	0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	0.0050	Note 49

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Area with crop, ha	0.64	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10

Possible additional non IPCC N2O-N emissions	Value	Total IPCC and non IPCC N2O	Note
N residues emissions, ratio of N2O-N to N:	0.0000	3.86	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	3.86	2.12 Note 51
Natural background emissions, kg N2O-N/ha:	1.00	4.56	2.81 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND FUEL/ other #9 POULTRY EGGS Note 43
 AND CONTINUING WITH MANURE FROM SCRAPING POULTRY TO PRODUCE WINTER WHEAT FOR POULTRY EGGS Note 43

Year Fertilizer/manure # Store Amounts Field 1/0 Or-ganic 1/0 Nnorm propor # Crop use & leach Straw used 1/0 Cereal benefit 1/0 Use # Name Fed Food #72 #71 #70 #8 #9 Fuel/ bevs #8 #9 Manure handling # Name Final N a- mounts N2O-N emission IPCC 1996 N2O-N emission IPCC 2006 Total Each Total Note 44
 Name 1/0 Store Amounts Field 1/0 Or-ganic 1/0 Nnorm propor # Crop use & leach Straw used 1/0 Cereal benefit 1/0 Use # Name Fed Food #72 #71 #70 #8 #9 Fuel/ bevs #8 #9 Manure handling # Name Final N a- mounts N2O-N emission IPCC 1996 N2O-N emission IPCC 2006 Total Each 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										11.2	11.2	2.56	4.71	2.23	2.91	Note 45
Year 1-10	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3										4.7	4.7	0.05	0.05	0.05	0.63	Note 45
	0.0866	0.0552	TOTAL N AMOUNTS IN KG AND % LEACHED										84.2	84.2	2.10				Note 45
TOTAL	0.1177	0.0727	TOTAL N AMOUNTS IN KG AND %										100.0	100.0					Note 45

N2O-N/N in food/beverage/fuel/other 0.4216 0.2605 Note 46

Year 1	100.0	100.0	100.0	0	100	119	0	0	97.8	43	40.0	9.6	0.0	0.0	0.0	0.0	44	30.4	2.00	3.46	1.75	2.21	Note 47
N leach	1.022	1.000	2.2	NON	100.00	WWHB	1.000	NO	57.8	Poultry	0.84	0.84	0.0	0.0	0.0	13.3	Scrap	0.0	0.02	0.125	0.02	0.0100	Note 48
Year 2	30.4	30.4	30.4	0	100	11	0	0	28.2	43	5.5	1.3	0.0	0.0	0.0	0.0	44	4.1	1.45	0.200	0.43	0.0200	Note 49
N leach	0.484	1.000	2.1	NON	100.00	WWH	1.000	NO	22.8	Poultry	0.67	0.67	0.0	0.0	0.0	0.0	44	0.0	0.02	0.125	0.02	0.0100	Note 48
Year 3	4.1	4.1	4.1	0	100	11	0	0	3.9	43	0.7	0.2	0.0	0.0	0.0	0.0	44	0.6	0.57	0.200	0.17	0.0200	Note 49
N leach	0.484	1.000	0.3	NON	100.00	WWH	1.000	NO	3.1	Poultry	0.67	0.67	0.0	0.0	0.0	0.0	44	0.0	0.00	0.125	0.00	0.0100	Note 48
Year 4	0.6	0.6	0.6	0	100	1	0	0	0.5	43	0.1	0.0	0.0	0.0	0.0	0.0	44	0.1	0.01	0.02	0.01	0.01	Note 47
N leach	0.484	1.000	0.0	NON	100.00	SBA	1.000	NO	0.4	Poultry	0.65	0.65	0.0	0.0	0.0	0.0	44	0.0	0.00	0.125	0.00	0.0100	Note 48
Year 5	0.1	0.1	0.1	0	100	10	0	0	0.1	43	0.0	0.0	0.0	0.0	0.0	0.0	44	0.0	0.01	0.0200	0.00	0.0200	Note 49
N leach	0.484	1.000	0.0	NON	100.00	WBA	1.000	NO	0.1	Poultry	0.66	0.66	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
Year 6	0.0	0.0	0.0	0	100	119	0	0	0.1	43	0.0	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
N leach	0.484	1.000	0.0	NON	100.00	WWHB	1.000	NO	0.1	Eggs	4	4	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 48
Year 7	0.0	0.0	0.0	0	100	11	0	0	0.0	43	0.0	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
N leach	0.484	1.000	0.0	NON	100.00	WWH	1.000	NO	0.0	Eggs	4	4	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 48
Year 8	0.0	0.0	0.0	0	100	11	0	0	0.0	43	0.0	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
N leach	0.484	1.000	0.0	NON	100.00	WWH	1.000	NO	0.0	Eggs	4	4	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 48
Year 9	0.0	0.0	0.0	0	100	1	0	0	0.0	43	0.0	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
N leach	0.484	1.000	0.0	NON	100.00	SBA	1.000	NO	0.0	Eggs	4	4	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 48
Year 10	0.0	0.0	0.0	0	100	10	0	0	0.0	43	0.0	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
N leach	0.484	1.000	0.0	NON	100.00	WBA	1.000	NO	0.0	Poultry	0.66	0.66	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 48
			ORG				0.806	0.0	0.0	Eggs	4	4	0.0	0.0	0.0	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 Year 10 Total Total/year 1

Area with crop, ha 0.64 0.09 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.74 1.17 Note 50

Possible additional non IPCC N2O-N emissions Value 0.0000 Kind of source
 N residues emissions, ratio of N2O-N to N: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Current crops
 Increased soil N emissions, kg N2O-N/ha: 1.00 0.64 0.09 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.74 Total anthropogenic
 Natural background emissions, kg N2O-N/ha: 1.00 0.64 0.09 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.74 Total including natural
 Total IPCC and non IPCC N2O 4.71 2.91 Note 51
 Total IPCC and non IPCC N2O 4.71 2.91 Note 51
 Total including natural 5.45 3.65 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop Crop use & # Name Use Fodder: N crop Food/ Fuel/ SHEEP MILK/MUTTON Note 43
AND CONTINUING WITH SHEEP DEEP LITTER TO PRODUCE benefit used leach # Name Fed Food #72 #8 #9 other #71/ be# #8 #9 #71/ be# #8 #9 SHEEP MILK/MUTTON Note 43

Year Fertilizer/manure Or-ganic 1/0 Store Field 1/0 Nnorm Crop # Name 1/0 Cereal benefit 1/0 Straw used 1/0 Crop use & leach # Name Use Fodder: #72 #8 #9 Fuel/ other #9 N2O-N emission
Store Amounts 1/0 1/0 Name 1/0 # Name 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 IPCC 1996 IPCC 2006
Name 1/0 Store Amounts 1/0 1/0 Name 1/0 # Name 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 IPCC 1996 IPCC 2006
Name 1/0 Store Amounts 1/0 1/0 Name 1/0 # Name 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 IPCC 1996 IPCC 2006
Name 1/0 Store Amounts 1/0 1/0 Name 1/0 # Name 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 IPCC 1996 IPCC 2006

Year		Fertilizer/manure		Or-ganic	1/0	Store	Field	1/0	Nnorm	Crop	#	Name	Use	Fodder:	N crop	Food/	Fuel/	SHEEP MILK/MUTTON	N2O-N emission		
1-10	N leach	1.022	1.000	0.0873	0.1266	0.0449	0.0647		100.00	100.00	100.00	WWHB	1.000	NO	0.0	0.0	0.0	0.0	2.59		
TOTAL		0.0873	0.1266	0.0449	0.0647	TOTAL N AMOUNTS IN KG AND %		7.1	6.7	TOTAL N AMOUNTS IN KG AND %		7.1	6.7	TOTAL N AMOUNTS IN KG AND %		7.1	6.7	TOTAL N AMOUNTS IN KG AND %		7.1	6.7

N2O-N in food/beverage/fuel/other

Year	N	1	100.0	100.0	0	100	119	0	0	0	0	97.8	51	40.0	5.7	0.0	0.0	0.0	34.3	1.97	3.49	1.29	1.80
1	Vol/NH3	YES	0.0	2.2	NON	100.00	WWHB	1.000	NO	0.0	0.0	57.8	Sheep	0.84	0.0	0.0	0.0	0.0	5.1	0.07	0.0125	0.07	0.0100
	N leach	1.022	1.000	ORG	1.00	1.000		0.591	0.0	0.0	0.0	57.8	Milk/multi	5	0.0	0.0	13.3	0.0	0.0	1.45	0.0200	0.43	0.0050
Year	N	53	33.9	33.9	0	100	11	0	0	0	0	33.9	51	8.1	1.2	0.0	0.0	0.0	7.0	0.61	1.25	0.43	0.63
2	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWH	1.000	NO	0.0	25.8	Sheep	0.67	0.0	0.0	0.0	0.0	1.0	0.00	0.0125	0.01	0.0100
	N leach	0.600	1.162	ORG	1.00	1.000		0.760	0.0	0.0	0.0	25.8	Milk/multi	5	0.0	0.0	4.6	0.0	0.0	0.64	0.0200	0.19	0.0050
Year	N	53	6.9	6.9	0	100	11	0	0	0	0	6.9	51	1.7	0.2	0.0	0.0	0.0	1.4	0.12	0.26	0.09	0.13
3	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWH	1.000	NO	0.0	5.2	Sheep	0.67	0.0	0.0	0.0	0.0	0.2	0.00	0.0125	0.00	0.0100
	N leach	0.600	1.162	ORG	1.00	1.000		0.760	0.0	0.0	0.0	5.2	Milk/multi	5	0.0	0.0	0.9	0.0	0.0	0.13	0.0200	0.04	0.0050
Year	N	53	1.4	1.4	0	100	1	0	0	0	0	1.4	51	0.3	0.0	0.0	0.0	0.0	0.3	0.02	0.05	0.02	0.03
4	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	SBA	1.000	NO	0.0	1.1	Sheep	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	0.600	1.162	ORG	1.00	1.000		0.760	0.0	0.0	0.0	1.1	Milk/multi	5	0.0	0.0	0.2	0.0	0.0	0.03	0.0200	0.01	0.0050
Year	N	53	0.3	0.3	0	100	10	0	0	0	0	0.3	51	0.1	0.0	0.0	0.0	0.0	0.1	0.01	0.01	0.00	0.01
5	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WBA	1.000	NO	0.0	0.2	Sheep	0.66	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	0.600	1.162	ORG	1.00	1.000		0.760	0.0	0.0	0.0	0.2	Milk/multi	5	0.0	0.0	0.0	0.0	0.0	0.01	0.0200	0.00	0.0050
Year	N	53	0.1	0.1	0	100	119	0	0	0	0	0.1	51	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
6	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWHB	1.000	NO	0.0	0.0	Sheep	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	0.600	1.162	ORG	1.00	1.000		0.760	0.0	0.0	0.0	0.0	Milk/multi	5	0.0	0.0	0.0	0.0	0.0	0.01	0.0200	0.00	0.0050
Year	N	53	0.0	0.0	0	100	11	0	0	0	0	0.0	51	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
7	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWH	1.000	NO	0.0	0.0	Sheep	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	0.600	1.162	ORG	1.00	1.000		0.760	0.0	0.0	0.0	0.0	Milk/multi	5	0.0	0.0	0.0	0.0	0.0	0.00	0.0200	0.00	0.0050
Year	N	53	0.0	0.0	0	100	11	0	0	0	0	0.0	51	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
8	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWH	1.000	NO	0.0	0.0	Sheep	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	0.600	1.162	ORG	1.00	1.000		0.760	0.0	0.0	0.0	0.0	Milk/multi	5	0.0	0.0	0.0	0.0	0.0	0.00	0.0200	0.00	0.0050
Year	N	53	0.0	0.0	0	100	1	0	0	0	0	0.0	51	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
9	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	SBA	1.000	NO	0.0	0.0	Sheep	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	0.600	1.162	ORG	1.00	1.000		0.760	0.0	0.0	0.0	0.0	Milk/multi	5	0.0	0.0	0.0	0.0	0.0	0.00	0.0200	0.00	0.0050
Year	N	53	0.0	0.0	0	100	10	0	0	0	0	0.0	51	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
10	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WBA	1.000	NO	0.0	0.0	Sheep	0.66	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	0.600	1.162	ORG	1.00	1.000		0.760	0.0	0.0	0.0	0.0	Milk/multi	5	0.0	0.0	0.0	0.0	0.0	0.00	0.0200	0.00	0.0050

Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1
Area with crop, ha 0.64 0.13 0.03 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.80 1.25
Possible additional non IPCC N2O-N emissions Value 1.00
N residues emissions, ratio of N2O-N to N: 0.0000
Increased soil N emissions, kg N2O-N/ha: 0.00
Natural background emissions, kg N2O-N/ha: 1.00
Kind of source
Current crops
Total anthropogenic
Total including natural
Total IPCC and non IPCC N2O
5.07
5.07
5.86
Note 51
2.59 Note 51
2.59 Note 51
3.38 Note 51
Note 50

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH MANURE FROM GRAZING SHEEP TO PRODUCE CEREAL TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR SHEEP MILK/MUTTON SHEEP MILK/MUTTON

Year Fertilizer/manure # Store Amounts Field 1/0 Or-ganic 1/0 Nnorm propor # Crop use & leach Straw used 1/0 Cereal benefit 1/0 Use # Name Fed Fodder: Uses #21-61 Food #72 N crop Food/ #71/ bev #8 Fuel/ other #9 Manure Final N a- IPCC 1996 N2O-N emission IPCC 2006 N2O-N emission Total Each Total

Table with 10 columns: Year, N, NH3, N leach, etc. Rows include ratios of N2O-N to N in first crop, and total N amounts in kg and % ending as food/fuel/other/removed for years 1-10.

N2O-N in food/beverage/fuel/other

Main data table with 28 columns: Year, VoI/NH3, N, N leach, and various emission factors and N2O-N values for years 1 through 10. Includes sub-totals for each year and overall totals for N2O-N.

Summary table for Year 1 to Year 10, showing N2O-N values and Total/year 1.

Area with crop, ha 0.64 0.10 0.02 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.76 1.19 Note 50

Possible additional non IPCC N2O-N emissions Value 0.0000 Kind of source Total IPCC and non IPCC N2O Note 51
N residues emissions, ratio of N2O-N to N: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Current crops 4.99 2.30 Note 51
Increased soil N emissions, kg N2O-N/ha: 1.00 0.64 0.10 0.02 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Total anthropogenic 4.99 2.30 Note 51
Natural background emissions, kg N2O-N/ha: 1.00 0.64 0.10 0.02 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Total including natural 5.75 3.06 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER GOAT DEEP LITTER	TO PRODUCE TO PRODUCE												GOAT MILK/MEAT									
Year	Fertilizer/manure #	Name	1/0	Store	Amounts	Field	1/0	Or-ganic	Nnorm	Crop	proportion	Use	Fodder:	N crop	Fuel/	Manure	Final	N2O-N emission	N2O-N emission	Each	Total	Each	Total
RATIO OF N2O-N TO N IN FIRST CROP																							
Total N	IPCC 1996				IPCC 2006				TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED														
Year	NH3	N	N leach	FIRST YEAR	TOTAL	100.0	2.2	0.0881	1.0	100.0	1.0	0.0452	TOTAL N AMOUNTS IN KG AND % LEACHED										
1-10	N	N leach	TOTAL	0.0881	0.0612	100.0	2.2	0.1164	1.0	100.0	1.0	0.0612	TOTAL N AMOUNTS IN KG AND %										

N2O-N in food/beverage/fuel/other																						
Year	N	NH3	N	N leach	100.0	2.2	0.0881	1.0	100.0	1.0	0.0452	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED										
1	Voi/NH3	N	N leach	NH3	N	N leach	1.022	1.000	1.000	100.0	100.0	1.000	0.591	0.84	6	13.3	5.4	0.08	0.08	0.0125	1.30	3.52
Year	N	NH3	N	N leach	100.0	30.4	0.0	0.0	0.0	100.0	100.0	0.0	0.228	6	5.5	0.0	0.0	0.43	0.45	0.0200	0.23	0.23
2	Voi/NH3	Goat	Goat	Goat	1.0	7.6	0.0	0.0	0.0	100.0	100.0	0.0	1.000	0.67	6	0.0	0.0	0.14	1.45	0.0200	0.23	0.23
Year	N	NH3	N	N leach	1.162	4.1	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.67	0.7	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
3	Voi/NH3	Goat	Goat	Goat	1.0	1.0	0.0	0.0	0.0	100.0	100.0	0.0	1.000	0.67	6	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
Year	N	NH3	N	N leach	1.162	0.6	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.65	0.1	0.0	0.0	0.04	0.41	0.0200	0.23	0.23
4	Voi/NH3	Goat	Goat	Goat	1.0	0.1	0.0	0.0	0.0	100.0	100.0	0.0	1.000	0.65	0.3	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
Year	N	NH3	N	N leach	1.162	0.1	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.66	0.1	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
5	Voi/NH3	Goat	Goat	Goat	1.0	0.1	0.0	0.0	0.0	100.0	100.0	0.0	1.000	0.66	0.0	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
Year	N	NH3	N	N leach	1.162	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.66	0.0	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
6	Voi/NH3	Goat	Goat	Goat	1.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.84	0.0	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
Year	N	NH3	N	N leach	1.162	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.84	0.0	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
7	Voi/NH3	Goat	Goat	Goat	1.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.84	0.0	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
Year	N	NH3	N	N leach	1.162	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.67	0.0	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
8	Voi/NH3	Goat	Goat	Goat	1.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.67	0.0	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
Year	N	NH3	N	N leach	1.162	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.67	0.0	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
9	Voi/NH3	Goat	Goat	Goat	1.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.65	0.0	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
Year	N	NH3	N	N leach	1.162	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.65	0.0	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
10	Voi/NH3	Goat	Goat	Goat	1.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.66	0.0	0.0	0.0	0.13	0.41	0.0200	0.23	0.23
Year	N	NH3	N	N leach	1.162	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.760	0.66	0.0	0.0	0.0	0.13	0.41	0.0200	0.23	0.23

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Area with crop, ha	0.64	0.11	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.21
Possible additional non IPCC N2O-N emissions	Value	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N residues emissions, ratio of N2O-N to N:	Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Increased soil N emissions, kg N2O-N/ha:	Value	1.00	0.64	0.11	0.02	0.00	0.00	0.00	0.00	0.00	5.42
Natural background emissions, kg N2O-N/ha:	Value	1.00	0.64	0.11	0.02	0.00	0.00	0.00	0.00	0.00	5.42
Total IPCC and non IPCC N2O	Value	4.66	2.45	0.51	0.23	0.08	0.03	0.01	0.01	0.01	13.08
Total anthropogenic	Value	4.66	2.45	0.51	0.23	0.08	0.03	0.01	0.01	0.01	13.08
Total including natural	Value	5.42	3.22	0.51	0.23	0.08	0.03	0.01	0.01	0.01	15.97

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CEREAL TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND GOAT MILK/MEAT
 AND CONTINUING WITH MANURE FROM GRAZING GOATS TO PRODUCE WINTER WHEAT FOR WINTER WHEAT FOR GOAT MILK/MEAT

Year	Fertilizer/manure #	Store 1/0	Amounts Store	Field 1/0	Or-ganic 1/0	Nhorm propor 1/0	Crop #	Straw used 1/0	Use Name	Fodder: Fed	N crop #71/72	Fuel/other #9	Manure handling #	Final N a-	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total	
Total N	1	100.0	100.0	100.0	0	100	119	0	97.8	61	40.0	3.8	0.0	0.0	2.82	5.13	2.05	2.77
Year 1-10 N leach	YES	0.0	2.2	NON	100.00	WWHB	1000	NO	57.8	Goat	0.84	0.0	0.0	0.0	0.05	0.05	0.68	Note 45
	1.022	1.000	ORG	1.00	1.000		0.591	0.0	57.8	Milk/meat	6	13.3	Graz	0.0	2.25		Note 45	
Year 2	64	1	36.2	0	100	11	0	0	33.6	61	6.5	0.6	0.0	0.0	2.82	5.13	2.05	2.77
	Goat	YES	0.0	2.5	NON	100.00	WWHB	1000	NO	27.1	Goat	0.67	0.0	0.0	0.05	0.05	0.68	Note 45
	1.000	1.000	ORG	1.00	1.000		0.806	0.0	27.1	Milk/meat	6	4.6	Graz	0.0	2.25		Note 45	
Year 3	64	1	5.9	0	100	11	0	0	5.5	61	1.1	0.1	0.0	0.0	2.82	5.13	2.05	2.77
	Goat	YES	0.0	0.4	NON	100.00	WWHB	1000	NO	4.4	Goat	0.67	0.0	0.0	0.05	0.05	0.68	Note 45
	1.000	1.000	ORG	1.00	1.000		0.806	0.0	4.4	Milk/meat	6	0.7	Graz	0.0	2.25		Note 45	
Year 4	64	1	1.0	0	100	1	1	0	0.9	61	0.2	0.0	0.0	0.0	2.82	5.13	2.05	2.77
	Goat	YES	0.0	0.1	NON	100.00	SBA	1000	NO	0.7	Goat	0.65	0.0	0.0	0.05	0.05	0.68	Note 45
	1.000	1.000	ORG	1.00	1.000		0.806	0.0	0.7	Milk/meat	6	0.1	Graz	0.0	2.25		Note 45	
Year 5	64	1	0.2	0	100	10	0	0	0.1	61	0.0	0.0	0.0	0.0	2.82	5.13	2.05	2.77
	Goat	YES	0.0	0.0	NON	100.00	WBA	1000	NO	0.1	Goat	0.66	0.0	0.0	0.05	0.05	0.68	Note 45
	1.000	1.000	ORG	1.00	1.000		0.806	0.0	0.1	Milk/meat	6	0.0	Graz	0.0	2.25		Note 45	
Year 6	64	1	0.0	0	100	119	0	0	0.0	61	0.0	0.0	0.0	0.0	2.82	5.13	2.05	2.77
	Goat	YES	0.0	0.0	NON	100.00	WWHB	1000	NO	0.0	Goat	0.84	0.0	0.0	0.05	0.05	0.68	Note 45
	1.000	1.000	ORG	1.00	1.000		0.806	0.0	0.0	Milk/meat	6	0.0	Graz	0.0	2.25		Note 45	
Year 7	64	1	0.0	0	100	11	0	0	0.0	61	0.0	0.0	0.0	0.0	2.82	5.13	2.05	2.77
	Goat	YES	0.0	0.0	NON	100.00	WWH	1000	NO	0.0	Goat	0.67	0.0	0.0	0.05	0.05	0.68	Note 45
	1.000	1.000	ORG	1.00	1.000		0.806	0.0	0.0	Milk/meat	6	0.0	Graz	0.0	2.25		Note 45	
Year 8	64	1	0.0	0	100	11	0	0	0.0	61	0.0	0.0	0.0	0.0	2.82	5.13	2.05	2.77
	Goat	YES	0.0	0.0	NON	100.00	WWH	1000	NO	0.0	Goat	0.67	0.0	0.0	0.05	0.05	0.68	Note 45
	1.000	1.000	ORG	1.00	1.000		0.806	0.0	0.0	Milk/meat	6	0.0	Graz	0.0	2.25		Note 45	
Year 9	64	1	0.0	0	100	1	1	0	0.0	61	0.0	0.0	0.0	0.0	2.82	5.13	2.05	2.77
	Goat	YES	0.0	0.0	NON	100.00	SBA	1000	NO	0.0	Goat	0.65	0.0	0.0	0.05	0.05	0.68	Note 45
	1.000	1.000	ORG	1.00	1.000		0.806	0.0	0.0	Milk/meat	6	0.0	Graz	0.0	2.25		Note 45	
Year 10	64	1	0.0	0	100	10	0	0	0.0	61	0.0	0.0	0.0	0.0	2.82	5.13	2.05	2.77
	Goat	YES	0.0	0.0	NON	100.00	WBA	1000	NO	0.0	Goat	0.66	0.0	0.0	0.05	0.05	0.68	Note 45
	1.000	1.000	ORG	1.00	1.000		0.806	0.0	0.0	Milk/meat	6	0.0	Graz	0.0	2.25		Note 45	

N2O-N in food/beverage/fuel/other

Year	N	Vol/NH3	N	YES	100.0	0	100	119	0	0	40.0	3.8	0.0	0.0	2.11	3.58	1.51	1.96
Year 1	N leach	1.022	1.000	ORG	1.00	1.000		0.591	0.0	57.8	Goat	0.84	0.0	0.0	0.02	0.0125	0.02	0.0100
Year 2	N leach	36.2	0	100	11	0	0	0	33.6	61	6.5	0.6	0.0	0.0	1.45	0.0200	0.43	0.0100
Year 3	N leach	5.9	0	100	11	0	0	0	5.5	61	1.1	0.1	0.0	0.0	0.60	1.30	0.45	0.0100
Year 4	N leach	1.0	0	100	1	1	0	0	0.9	61	0.2	0.0	0.0	0.0	0.03	0.03	0.01	0.02
Year 5	N leach	0.2	0	100	10	0	0	0	0.1	61	0.0	0.0	0.0	0.0	0.02	0.0200	0.01	0.0100
Year 6	N leach	0.0	0	100	119	0	0	0	0.0	61	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0000
Year 7	N leach	0.0	0	100	11	0	0	0	0.0	61	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0000
Year 8	N leach	0.0	0	100	11	0	0	0	0.0	61	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0000
Year 9	N leach	0.0	0	100	1	1	0	0	0.0	61	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0000
Year 10	N leach	0.0	0	100	10	0	0	0	0.0	61	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0000

Year Total Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1

Area with crop, ha 0.64 0.11 0.02 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.77 1.21

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	Current crops	5.13
Increased soil N emissions, kg N2O-N/ha:	0.00	Total anthropogenic	5.13
Natural background emissions, kg N2O-N/ha:	1.00	Total including natural	5.90

Note 43 Note 43 Note 44 Note 44 Note 44 Note 45 Note 45 Note 46 Note 47 Note 48 Note 49 Note 48 Note 49 Note 47 Note 48 Note 49 Note 47 Note 48 Note 49 Note 47 Note 48 Note 49 Note 50 Note 51 Note 51 Note 51 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND HIGH N CROP
AND CONTINUING WITH GREEN MANURE HIGH N WINTER WHEAT FOR CATTLE DAIRY

Year Fertilizer/manure Or- Nnorm Crop Crop Straw Cereal Crop Fuel/ Manure Final N2O-N emission
Store Amounts ganic propor # use & # benefit N crop Food/ other handling N a-
Name 1/0 Store Field 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0 1/0
1/0
1/0
1/0 1/0

Table with 26 columns: Fertilizer/manure, ganic, Nnorm, Crop, use &, benefit, N crop, Food, other, handling, N a-, N2O-N emission, etc. Includes sub-tables for 'RATIO OF N2O-N TO N IN FIRST CROP' and 'TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED'.

N2O-N in food/beverage/fuel/other

Main data table with columns: Year, N type (VoI/NH3), Name, Store, Field, etc. Rows 1-10. Includes final Total and Totals for each year.

Year Area with crop, ha Year1 Year2 Year3 Year4 Year5 Year6 Year7 Year8 Year9 Year10 Total Total/year 1
0.64 0.23 0.05 0.01 0.00

Possible additional non IPCC N2O-N emissions Value
N residues emissions, ratio of N2O-N to N: 0.0000
Increased soil N emissions, kg N2O-N/ha: 0.00
Natural background emissions, kg N2O-N/ha: 1.00

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CEREAL Straw Crop use & leach
 AND CONTINUING WITH GREEN MANURE LOW N TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR CATTLE DAIRY

Year Fertilizer/manure # Store Amounts Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Crop # Name Use Fodder: Uses #21-61 Fed Food #72 N crop Food/ #71/ bev #8 Fuel/ other #9 Manure Final handling N a- # Name mounts Each Total N2O-N emission IPCC 1996 N2O-N emission IPCC 2006 Each Total

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED									
Year 1-10	ACCORDING TO IPCC 1996										TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3									
N leach	0.0714										84.0									
	0.1031										100.1									
	0.0586										100.0									

N2O-N in food/beverage/fuel/other

Year	N	1	100.0	100.0	0	100	119	0	0	97.8	72	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	1.39	2.86	1.14	1.57	2.34	
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WWHB	1.000	NO	57.8	N crop	0.84	0.0	Green	72	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N leach			1.000	1.022	ORG	1.00	1.000	0.591	0.0	57.8	low N	72	13.3	Low	0.43	1.45	0.0000	0.43	0.0000	0.43	0.0000	0.43	0.0000	
Year 2	Vol/NH3	Green	YES	0.0	40.0	0	100	11	0	0	30.0	0	6.4	1.5	0.0	0.0	0.0	0.0	0.0	0.43	1.12	0.37	0.65	0.47	
	N leach	Low	0.533	1.000	10.0	NON	100.00	WWH	1.000	NO	23.6	Cattle	0.67	0.0	Cattle	0.4	0.10	0.0125	0.37	0.0100	0.10	0.0100	0.47	0.48	
Year 3	Vol/NH3	Cattle	YES	0.1	4.5	0	100	11	0	0	3.4	0	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.05	0.11	0.04	0.07	0.47	
	N leach	Liquid	0.933	1.016	1.1	NON	100.00	WWH	1.000	NO	2.1	Cattle	0.67	2	0.5	Liquid	0.1	0.01	0.0125	0.01	0.0125	0.01	0.0100	0.48	
Year 4	Vol/NH3	Cattle	YES	0.0	0.9	0	100	1	0	0	0.7	0	0.2	0.1	0.0	0.0	0.0	0.0	0.05	0.02	0.01	0.02	0.01	0.01	
	N leach	Liquid	0.933	1.016	0.2	NON	100.00	SBA	1.000	NO	0.4	Cattle	0.65	2	0.1	Liquid	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100	0.48	
Year 5	Vol/NH3	Cattle	YES	0.0	0.2	0	100	10	0	0	0.1	0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	
	N leach	Liquid	0.933	1.016	0.0	NON	100.00	WBA	1.000	NO	0.1	Cattle	0.66	2	0.0	Liquid	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100	0.48	
Year 6	Vol/NH3	Cattle	YES	0.0	0.0	0	100	119	0	0	0.1	0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	
	N leach	Liquid	0.933	1.016	0.0	NON	100.00	WBA	1.000	NO	0.1	Cattle	0.66	2	0.0	Liquid	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100	0.48	
Year 7	Vol/NH3	Green	YES	0.0	0.0	0	100	11	0	0	0.0	0	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	
	N leach	Liquid	0.933	1.016	0.0	NON	100.00	WWHB	1.000	NO	0.0	N crop	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	
Year 8	Vol/NH3	Green	YES	0.0	0.0	0	100	11	0	0	0.0	0	72	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	
	N leach	Low	0.533	1.000	0.0	NON	100.00	WWH	1.000	NO	0.0	low N	72	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	
Year 9	Vol/NH3	Cattle	YES	0.0	0.0	0	100	11	0	0	0.0	0	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	
	N leach	Liquid	0.933	1.016	0.0	NON	100.00	WWH	1.000	NO	0.0	Cattle	0.67	2	0.0	Cattle	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100	0.48	
Year 10	Vol/NH3	Cattle	YES	0.0	0.0	0	100	10	0	0	0.0	0	0.66	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	
	N leach	Liquid	0.933	1.016	0.0	NON	100.00	WBA	1.000	NO	0.0	Cattle	0.66	2	0.0	Liquid	0.0	0.00	0.0125	0.00	0.0125	0.00	0.0100	0.48	

Year 1 0.64 0.13 0.03 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.80 1.26

Area with crop, ha

Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha: 3.15

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

Year Fertilizer/manure # Store Amounts Store 1/0 Field Name 1/0 Or-ganic 1/0 Nnorm # Crop use & leach Straw used 1/0 Cereal benefit 1/0 N crop #71/ bevs #72 Food Fed Uses #21-61 Fodder: Uses #21-61 Fuel/ other #9 Manure Final handling N a- # Name mounts N2O-N emission IPCC 1996 N2O-N emission IPCC 2006 Total Each Total Note 44 Note 44 Note 44

Total N	RATIO OF N2O-N TO N IN FIRST CROP													
Year 1-10 N leach	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED													
	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3											
	0.0714	0.0400	2.2 2.2											
TOTAL	0.0714	0.0400	57.8 57.8											
	TOTAL N AMOUNTS IN KG AND %													
	100.0 40.0													

Year	N	Vol/NH3	N	YES	1	100.0	100.0	0	100	119	0	0	97.8	8	0.0	0.0	40.0	0.0	0.0	1.39	2.86	1.14	1.60
1	Vol/NH3	N	YES			100.0	2.2	NON	100.00	WWHB	1.000	NO	57.8	Food/	0.84	0.0	NONE	0.0	0.0	1.39	2.86	1.14	1.60
Year	N	leach		1.022	1.000	0.0	0.0	ORG	1.00	1.000	0.591	0.0	57.8	beverage	8	13.3	NONE	0.0	1.45	0.0000	0.43	0.0000	
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	0.00	0.00	0.00	0.00
Year	N	leach		1.000	1.000	0.0	0.0	ORG	1.00	1.000	0.600	0.0	0.0	beverage	8	0.0	0	0.0	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00
Year	N	leach		1.000	1.000	0.0	0.0	ORG	1.00	1.000	0.600	0.0	0.0	beverage	8	0.0	0	0.0	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00
Year	N	leach		1.000	1.000	0.0	0.0	ORG	1.00	1.000	0.600	0.0	0.0	beverage	8	0.0	0	0.0	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00
Year	N	leach		1.000	1.000	0.0	0.0	ORG	1.00	1.000	0.600	0.0	0.0	beverage	8	0.0	0	0.0	0.00	0.00	0.00	0.00	0.00
6	Vol/NH3	None	YES			0.0	0.0	NON	100.00	NO	1.000	NO	0.0	Food/	0.84	0.0	NONE	0.0	0.00	0.00	0.00	0.00	0.00
Year	N	leach		1.000	1.000	0.0	0.0	ORG	1.00	1.000	0.600	0.0	0.0	beverage	8	0.0	0	0.0	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00
Year	N	leach		1.000	1.000	0.0	0.0	ORG	1.00	1.000	0.600	0.0	0.0	beverage	8	0.0	0	0.0	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00
Year	N	leach		1.000	1.000	0.0	0.0	ORG	1.00	1.000	0.600	0.0	0.0	beverage	8	0.0	0	0.0	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00
Year	N	leach		1.000	1.000	0.0	0.0	ORG	1.00	1.000	0.600	0.0	0.0	beverage	8	0.0	0	0.0	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00
Year	N	leach		1.000	1.000	0.0	0.0	ORG	1.00	1.000	0.600	0.0	0.0	beverage	8	0.0	0	0.0	0.00	0.00	0.00	0.00	0.00

Year Year1 Year2 Year3 Year4 Year5 Year6 Year7 Year8 Year9 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

Possible additional non IPCC N2O-N emissions Value 0.0000 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.64 1.00
 N residues emissions, ratio of N2O-N to N: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 Increased soil N 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 1.00
 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 1.00

Total IPCC and non IPCC N2O 2.86 2.86 3.49 1.60 1.60 2.24 2.24 1.60 1.60 2.24 1.60 2.24

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH NO MANURE TO PRODUCE CEREAL TO PRODUCE

Fertilizer/manure # Store Amounts Name 1/0 Store Field Fertilizer/manure Use # Name Fed Fodder: Uses #21-61 Food #72 N crop Food/Fuel/ other #9 Manure Final handling N a- # Name mounts N2O-N emission IPCC 1996 N2O-N emission IPCC 2006 Each Total Each Total

RATIO OF N2O-N TO N IN FIRST CROP														
IPCC 1996 IPCC 2006														
FIRST YEAR														
TOTAL														

TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 TOTAL N AMOUNTS IN KG AND % LEACHED TOTAL N AMOUNTS IN KG AND %

Year	N	1	100.0	100.0	119	0	0	97.8	9	0.0	0.0	0.0	0.0	40.0	0	40.0	1.39	2.86	1.14	1.60
1	Vol/NH3	YES	2.2	NON	100.0	WWHB	1.000	NO	0.84	0	0	0	0	0	NONE	0	0.02	0.0125	0.02	1.14
	N leach	1.022	1.000	ORG	1.00	1.000	0.591	0	9	0	0	0	0	13.3	0	0	1.45	0.0000	0.43	1.60
Year	N	0	0.0	0.0	100	11	1.000	NO	0.67	9	0	0	0	0	0	0	0.00	0.00	0.00	0.43
2	Vol/NH3	None	0.0	0.0	100.0	NO	1.000	NO	0.67	9	0	0	0	0	NONE	0	0.00	0.0125	0.00	0.00
	N leach	1.000	1.000	ORG	1.00	1.000	0.600	0	9	0	0	0	0	0	0	0	0.00	0.0000	0.00	0.00
Year	N	0	0.0	0.0	100	11	1.000	NO	0.67	9	0	0	0	0	0	0	0.00	0.00	0.00	0.00
3	Vol/NH3	None	0.0	0.0	100.0	NO	1.000	NO	0.67	9	0	0	0	0	NONE	0	0.00	0.0125	0.00	0.00
	N leach	1.000	1.000	ORG	1.00	1.000	0.600	0	9	0	0	0	0	0	0	0	0.00	0.0000	0.00	0.00
Year	N	0	0.0	0.0	100	1	1.000	NO	0.65	9	0	0	0	0	0	0	0.00	0.00	0.00	0.00
4	Vol/NH3	None	0.0	0.0	100.0	NO	1.000	NO	0.65	9	0	0	0	0	NONE	0	0.00	0.0125	0.00	0.00
	N leach	1.000	1.000	ORG	1.00	1.000	0.600	0	9	0	0	0	0	0	0	0	0.00	0.0000	0.00	0.00
Year	N	0	0.0	0.0	100	10	1.000	NO	0.66	9	0	0	0	0	0	0	0.00	0.00	0.00	0.00
5	Vol/NH3	None	0.0	0.0	100.0	NO	1.000	NO	0.66	9	0	0	0	0	NONE	0	0.00	0.0125	0.00	0.00
	N leach	1.000	1.000	ORG	1.00	1.000	0.600	0	9	0	0	0	0	0	0	0	0.00	0.0000	0.00	0.00
Year	N	0	0.0	0.0	100	119	1.000	NO	0.84	9	0	0	0	0	0	0	0.00	0.00	0.00	0.00
6	Vol/NH3	None	0.0	0.0	100.0	NO	1.000	NO	0.84	9	0	0	0	0	NONE	0	0.00	0.0125	0.00	0.00
	N leach	1.000	1.000	ORG	1.00	1.000	0.600	0	9	0	0	0	0	0	0	0	0.00	0.0000	0.00	0.00
Year	N	0	0.0	0.0	100	11	1.000	NO	0.67	9	0	0	0	0	0	0	0.00	0.00	0.00	0.00
7	Vol/NH3	None	0.0	0.0	100.0	NO	1.000	NO	0.67	9	0	0	0	0	NONE	0	0.00	0.0125	0.00	0.00
	N leach	1.000	1.000	ORG	1.00	1.000	0.600	0	9	0	0	0	0	0	0	0	0.00	0.0000	0.00	0.00
Year	N	0	0.0	0.0	100	11	1.000	NO	0.67	9	0	0	0	0	0	0	0.00	0.00	0.00	0.00
8	Vol/NH3	None	0.0	0.0	100.0	NO	1.000	NO	0.67	9	0	0	0	0	NONE	0	0.00	0.0125	0.00	0.00
	N leach	1.000	1.000	ORG	1.00	1.000	0.600	0	9	0	0	0	0	0	0	0	0.00	0.0000	0.00	0.00
Year	N	0	0.0	0.0	100	1	1.000	NO	0.65	9	0	0	0	0	0	0	0.00	0.00	0.00	0.00
9	Vol/NH3	None	0.0	0.0	100.0	NO	1.000	NO	0.65	9	0	0	0	0	NONE	0	0.00	0.0125	0.00	0.00
	N leach	1.000	1.000	ORG	1.00	1.000	0.600	0	9	0	0	0	0	0	0	0	0.00	0.0000	0.00	0.00
Year	N	0	0.0	0.0	100	10	1.000	NO	0.66	9	0	0	0	0	0	0	0.00	0.00	0.00	0.00
10	Vol/NH3	None	0.0	0.0	100.0	NO	1.000	NO	0.66	9	0	0	0	0	NONE	0	0.00	0.0125	0.00	0.00
	N leach	1.000	1.000	ORG	1.00	1.000	0.600	0	9	0	0	0	0	0	0	0	0.00	0.0000	0.00	0.00

Year Area with crop, ha Year 1 0.64 Year 2 0.00 Year 3 0.00 Year 4 0.00 Year 5 0.00 Year 6 0.00 Year 7 0.00 Year 8 0.00 Year 9 0.00 Year 10 0.00 Total/year 1 1.00

Possible additional non IPCC N2O-N emissions Value 0.0000 N residues emissions, ratio of N2O-N to N: 0.00 Increased soil N emissions, kg N2O-N/ha: 1.00 Natural background emissions, kg N2O-N/ha: 1.00 Total IPCC and non IPCC N2O 2.86 Total anthropogenic 2.86 Total including natural 3.49 Note 50 Note 51 1.60 Note 51 1.60 Note 51 2.24 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop Crop use & N crop Food/ Fuel/ Manure Final N2O-N emission N2O-N emission
 AND CONTINUING WITH NO MANURE TO PRODUCE benefit used 1/0 leach use # Uses #21-61 #71/ bev other handling N a- IPCC 1996 IPCC 2006
 WASTE, DUMPED ELSEWHERE WITHOUT LEACHING WASTE, DUMPED ELSEWHERE

Year	Fertilizer/manure #	Store 1/0	Amounts Store	Field 1/0	Fertilizer/manure gamic 1/0	Nnorm propor #	Crop Name	Norm Name	Or-ganic 1/0	Crop Name	Use #	Fodder: Uses #21-61	N crop #71/	Food #72	Food #8	Fuel/ other #9	Manure handling # Name	Final N a-	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total	Total	
Total N	1	1	100.0	100.0	2.2 NON	100	119	0	0	0	97.8 Waste	0.0	0.0	0.0	0.0	0.0	0	40.0	40.0	1.39	2.86	1.14	1.60
Year N NH3	YES		0.0	0.0	1.000 NO	100.00	WWHB	1.000 NO		0	57.8 Waste	0.84	0.0	0.0	0.0	0.0	None	2.2	2.2	0.02	0.02	0.02	0.02
1-10 N leach	1.022		1.000	1.000	ORG	1.00	1.000	0.591	0.0	0	57.8 moved	0	0	0.0	0.0	13.3		57.8	57.8	1.45	1.45	0.43	0.43
Year 2	0	1	0.0	0.0	0.0 NON	100	NO	1.000 NO		0	0.0 Waste	0.67	0.0	0.0	0.0	0.0	None	0.0	0.0	0.00	0.00	0.00	0.00
N leach	1.000		1.000	1.000	ORG	1.00	1.000	0.600	0.0	0	0.0 moved	0	0.0	0.0	0.0	0.0		0.0	0.0	0.00	0.00	0.00	0.00
Year 3	0	1	0.0	0.0	0.0 NON	100	NO	1.000 NO		0	0.0 Waste	0.67	0.0	0.0	0.0	0.0	None	0.0	0.0	0.00	0.00	0.00	0.00
N leach	1.000		1.000	1.000	ORG	1.00	1.000	0.600	0.0	0	0.0 moved	0	0.0	0.0	0.0	0.0		0.0	0.0	0.00	0.00	0.00	0.00
Year 4	0	1	0.0	0.0	0.0 NON	100	NO	1.000 NO		0	0.0 Waste	0.65	0.0	0.0	0.0	0.0	None	0.0	0.0	0.00	0.00	0.00	0.00
N leach	1.000		1.000	1.000	ORG	1.00	1.000	0.600	0.0	0	0.0 moved	0	0.0	0.0	0.0	0.0		0.0	0.0	0.00	0.00	0.00	0.00
Year 5	0	1	0.0	0.0	0.0 NON	100	NO	1.000 NO		0	0.0 Waste	0.66	0.0	0.0	0.0	0.0	None	0.0	0.0	0.00	0.00	0.00	0.00
N leach	1.000		1.000	1.000	ORG	1.00	1.000	0.600	0.0	0	0.0 moved	0	0.0	0.0	0.0	0.0		0.0	0.0	0.00	0.00	0.00	0.00
Year 6	0	1	0.0	0.0	0.0 NON	100	NO	1.000 NO		0	0.0 Waste	0.84	0.0	0.0	0.0	0.0	None	0.0	0.0	0.00	0.00	0.00	0.00
N leach	1.000		1.000	1.000	ORG	1.00	1.000	0.600	0.0	0	0.0 moved	0	0.0	0.0	0.0	0.0		0.0	0.0	0.00	0.00	0.00	0.00
Year 7	0	1	0.0	0.0	0.0 NON	100	NO	1.000 NO		0	0.0 Waste	0.67	0.0	0.0	0.0	0.0	None	0.0	0.0	0.00	0.00	0.00	0.00
N leach	1.000		1.000	1.000	ORG	1.00	1.000	0.600	0.0	0	0.0 moved	0	0.0	0.0	0.0	0.0		0.0	0.0	0.00	0.00	0.00	0.00
Year 8	0	1	0.0	0.0	0.0 NON	100	NO	1.000 NO		0	0.0 Waste	0.67	0.0	0.0	0.0	0.0	None	0.0	0.0	0.00	0.00	0.00	0.00
N leach	1.000		1.000	1.000	ORG	1.00	1.000	0.600	0.0	0	0.0 moved	0	0.0	0.0	0.0	0.0		0.0	0.0	0.00	0.00	0.00	0.00
Year 9	0	1	0.0	0.0	0.0 NON	100	NO	1.000 NO		0	0.0 Waste	0.65	0.0	0.0	0.0	0.0	None	0.0	0.0	0.00	0.00	0.00	0.00
N leach	1.000		1.000	1.000	ORG	1.00	1.000	0.600	0.0	0	0.0 moved	0	0.0	0.0	0.0	0.0		0.0	0.0	0.00	0.00	0.00	0.00
Year 10	0	1	0.0	0.0	0.0 NON	100	NO	1.000 NO		0	0.0 Waste	0.66	0.0	0.0	0.0	0.0	None	0.0	0.0	0.00	0.00	0.00	0.00
N leach	1.000		1.000	1.000	ORG	1.00	1.000	0.600	0.0	0	0.0 moved	0	0.0	0.0	0.0	0.0		0.0	0.0	0.00	0.00	0.00	0.00

N2O-N in food/beverage/fuel/other

Year	N	N leach	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1
1	1.14	0.02	0.0	0.0	0.0	0.0	0.0	0.0	0.84	0.0	0.0	0.0	1.39	2.86
2	0.43	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	1.45	0.0000
3	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.67	0.0	0.0	0.0	0.00	0.0125
4	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.67	0.0	0.0	0.0	0.00	0.0125
5	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.66	0.0	0.0	0.0	0.00	0.0125
6	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.84	0.0	0.0	0.0	0.00	0.0125
7	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.67	0.0	0.0	0.0	0.00	0.0125
8	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.67	0.0	0.0	0.0	0.00	0.0125
9	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.65	0.0	0.0	0.0	0.00	0.0125
10	0.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.66	0.0	0.0	0.0	0.00	0.0125
Total	1.14	0.02	0.00	0.00	0.00	0.00	0.00	0.00	5.96	0.00	0.00	0.00	13.49	1.60

Area with crop, ha

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
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

Possible additional non IPCC N2O-N emissions

Value	Total IPCC and non IPCC N2O
0.0000	2.86
0.00	2.86
1.00	3.49

N residues emissions, ratio of N2O-N to N: 1.60 Note 51
 Increased soil N emissions, kg N2O-N/ha: 1.60 Note 51
 Natural background emissions, kg N2O-N/ha: 2.24 Note 51

SUMMARY CATTLE DAIRY

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE DAIRY CATTLE DAIRY	Note 43 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		13.92 13.85	1.59
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	13.74 13.67	0.14
1-10 N leach	0.0726	0.0438	TOTAL N AMOUNTS IN KG AND % LEACHED	72.86 72.49	0.55
TOTAL	0.0930	0.0568	TOTAL N AMOUNTS IN KG AND %	100.52 100.00	

N2O-N/N in food/beverage/fuel/other		Total/year 1	0.2674	0.1632	Note 46
Area with crop, ha		0.82			Note 50
Natural background emissions, kg N2O-N/ha:		0.82	4.55	3.09	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE DAIRY CATTLE DAIRY	Note 43 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		13.65 13.58	1.57
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	14.27 14.19	0.14
1-10 N leach	0.0788	0.0437	TOTAL N AMOUNTS IN KG AND % LEACHED	72.60 72.22	0.54
TOTAL	0.1002	0.0565	TOTAL N AMOUNTS IN KG AND %	100.52 100.00	

N2O-N/N in food/beverage/fuel/other		Total/year 1	0.2936	0.1654	Note 46
Area with crop, ha		0.80			Note 50
Natural background emissions, kg N2O-N/ha:		0.80	4.81	3.06	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER CATTLE DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE DAIRY CATTLE DAIRY	Note 43 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		12.82 12.25	1.50
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	20.39 19.47	0.20
1-10 N leach	0.0851	0.0437	TOTAL N AMOUNTS IN KG AND % LEACHED	71.49 68.28	0.54
TOTAL	0.1057	0.0561	TOTAL N AMOUNTS IN KG AND %	104.71 100.00	

N2O-N/N in food/beverage/fuel/other		Total/year 1	0.3297	0.1749	Note 46
Area with crop, ha		0.73			Note 50
Natural background emissions, kg N2O-N/ha:		0.73	4.95	2.97	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING CATTLE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE DAIRY CATTLE DAIRY	Note 43 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		13.19 13.19	2.15
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	4.49 4.49	0.04
1-10 N leach	0.0855	0.0541	TOTAL N AMOUNTS IN KG AND % LEACHED	82.32 82.32	0.62
TOTAL	0.1144	0.0704	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other		Total/year 1	0.3470	0.2135	Note 46
Area with crop, ha		0.74			Note 50
Natural background emissions, kg N2O-N/ha:		0.74	5.31	3.55	Note 51

SUMMARY CATTLE BEEF

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE BEEF CATTLE BEEF	Note 43 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		12.38 12.31	1.61
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	14.42 14.34	0.14
1-10 N leach	0.0727	0.0440	TOTAL N AMOUNTS IN KG AND % LEACHED	73.75 73.35	0.55
TOTAL	0.0943	0.0578	TOTAL N AMOUNTS IN KG AND %	100.55 100.00	

N2O-N/N in food/beverage/fuel/other		0.3047	0.1866	Note 46
Area with crop, ha	Total/year 1			
Natural background emissions, kg N2O-N/ha:	0.84	1.31		Note 50
	0.84		3.15	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE BEEF CATTLE BEEF	Note 43 Note 43
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Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		12.13 12.07	1.60
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	14.96 14.88	0.15
1-10 N leach	0.0791	0.0439	TOTAL N AMOUNTS IN KG AND % LEACHED	73.45 73.05	0.55
TOTAL	0.1019	0.0574	TOTAL N AMOUNTS IN KG AND %	100.55 100.00	

N2O-N/N in food/beverage/fuel/other		0.3359	0.1893	Note 46
Area with crop, ha	Total/year 1			
Natural background emissions, kg N2O-N/ha:	0.81	1.27		Note 50
	0.73		3.11	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER CATTLE DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE BEEF CATTLE BEEF	Note 43 Note 43
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Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		11.36 10.82	1.52
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	21.37 20.36	0.21
1-10 N leach	0.0857	0.0439	TOTAL N AMOUNTS IN KG AND % LEACHED	72.23 68.82	0.54
TOTAL	0.1076	0.0570	TOTAL N AMOUNTS IN KG AND %	104.96 100.00	

N2O-N/N in food/beverage/fuel/other		0.3788	0.2006	Note 46
Area with crop, ha	Total/year 1			
Natural background emissions, kg N2O-N/ha:	0.73	1.15		Note 50
	0.73		3.01	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING CATTLE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE BEEF CATTLE BEEF	Note 43 Note 43
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Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		11.70 11.70	2.21
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	4.62 4.62	0.05
1-10 N leach	0.0862	0.0548	TOTAL N AMOUNTS IN KG AND % LEACHED	83.68 83.68	0.63
TOTAL	0.1168	0.0721	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other		0.3994	0.2465	Note 46
Area with crop, ha	Total/year 1			
Natural background emissions, kg N2O-N/ha:	0.74	1.16		Note 50
	0.74		3.62	Note 51

SUMMARY PIG PORK

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID PIG MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	PIG PORK PIG PORK	Note 43 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		19.58 19.58	1.46
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	12.35 12.35	0.12
1-10 N leach	0.0727	0.0433	TOTAL N AMOUNTS IN KG AND % LEACHED	68.07 68.07	0.51
TOTAL	0.0870	0.0524	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other 0.1777 0.1070 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.78 1.22
 0.78 2.87 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED PIG MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	PIG PORK PIG PORK	Note 43 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		18.58 18.48	1.40
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	15.77 15.69	0.16
1-10 N leach	0.0775	0.0434	TOTAL N AMOUNTS IN KG AND % LEACHED	66.16 65.83	0.50
TOTAL	0.0901	0.0514	TOTAL N AMOUNTS IN KG AND %	100.51 100.00	

N2O-N/N in food/beverage/fuel/other 0.1941 0.1106 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.73 1.15
 0.73 2.78 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER PIG DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	PIG PORK PIG PORK	Note 43 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		18.11 17.69	1.35
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	20.23 19.75	0.20
1-10 N leach	0.0816	0.0436	TOTAL N AMOUNTS IN KG AND % LEACHED	64.07 62.56	0.48
TOTAL	0.0927	0.0508	TOTAL N AMOUNTS IN KG AND %	102.40 100.00	

N2O-N/N in food/beverage/fuel/other 0.2047 0.1123 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.71 1.11
 0.71 2.74 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM ROOTING PIGS	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	PIG PORK PIG PORK	Note 43 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		19.70 19.70	1.99
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	4.12 4.12	0.04
1-10 N leach	0.0830	0.0516	TOTAL N AMOUNTS IN KG AND % LEACHED	76.18 76.18	0.57
TOTAL	0.1061	0.0651	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other 0.2155 0.1322 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.76 1.19
 0.76 3.36 Note 51

SUMMARY POULTRY MEAT

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY MEAT POULTRY MEAT	Note 43 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		22.98 22.98	1.41
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	9.67 9.67	0.10
1-10 N leach	0.0723	0.0427	TOTAL N AMOUNTS IN KG AND % LEACHED	67.34 67.34	0.51
TOTAL	0.0849	0.0504	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45

N2O-N/N in food/beverage/fuel/other 0.1478 0.0877 Note 46

Area with crop, ha Total/year 1 0.74 1.17 Note 50
 Natural background emissions, kg N2O-N/ha: 0.74 2.76 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY MEAT POULTRY MEAT	Note 43 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		22.20 22.20	1.34
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	13.33 13.33	0.13
1-10 N leach	0.0765	0.0431	TOTAL N AMOUNTS IN KG AND % LEACHED	64.46 64.46	0.48
TOTAL	0.0862	0.0490	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45

N2O-N/N in food/beverage/fuel/other 0.1552 0.0883 Note 46

Area with crop, ha Total/year 1 0.71 1.12 Note 50
 Natural background emissions, kg N2O-N/ha: 0.71 2.67 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER POULTRY DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY MEAT POULTRY MEAT	Note 43 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		21.34 21.31	1.30
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	15.15 15.13	0.15
1-10 N leach	0.0792	0.0434	TOTAL N AMOUNTS IN KG AND % LEACHED	63.66 63.56	0.48
TOTAL	0.0872	0.0481	TOTAL N AMOUNTS IN KG AND %	100.16 100.00	Note 45 Note 45

N2O-N/N in food/beverage/fuel/other 0.1634 0.0902 Note 46

Area with crop, ha Total/year 1 0.67 1.06 Note 50
 Natural background emissions, kg N2O-N/ha: 0.67 2.60 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM SCRAPING POULTRY	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY MEAT POULTRY MEAT	Note 43 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		22.37 22.37	1.81
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	3.70 3.70	0.04
1-10 N leach	0.0812	0.0498	TOTAL N AMOUNTS IN KG AND % LEACHED	73.92 73.92	0.55
TOTAL	0.0997	0.0600	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45

N2O-N/N in food/beverage/fuel/other 0.1782 0.1073 Note 46

Area with crop, ha Total/year 1 0.70 1.10 Note 50
 Natural background emissions, kg N2O-N/ha: 0.70 3.10 Note 51

SUMMARY POULTRY EGGS

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY EGGS POULTRY EGGS	Note 43 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		11.67 11.67	1.59
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	14.64 14.64	0.15
1-10 N leach	0.0728	0.0442	TOTAL N AMOUNTS IN KG AND % LEACHED	73.69 73.69	0.55
TOTAL	0.0939	0.0573	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other					0.1965 Note 46
Area with crop, ha		Total/year 1		0.81 1.28	Note 50
Natural background emissions, kg N2O-N/ha:		0.81		4.57	3.11 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY EGGS POULTRY EGGS	Note 43 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		11.03 11.03	1.47
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	20.32 20.32	0.20
1-10 N leach	0.0793	0.0447	TOTAL N AMOUNTS IN KG AND % LEACHED	68.65 68.65	0.51
TOTAL	0.0954	0.0547	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other					0.1983 Note 46
Area with crop, ha		Total/year 1		0.76 1.19	Note 50
Natural background emissions, kg N2O-N/ha:		0.76		4.57	2.94 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER POULTRY DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY EGGS POULTRY EGGS	Note 43 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		10.35 10.32	1.39
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	22.79 22.73	0.23
1-10 N leach	0.0835	0.0453	TOTAL N AMOUNTS IN KG AND % LEACHED	67.12 66.95	0.50
TOTAL	0.0965	0.0529	TOTAL N AMOUNTS IN KG AND %	100.25 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other					0.2045 Note 46
Area with crop, ha		Total/year 1		0.70 1.10	Note 50
Natural background emissions, kg N2O-N/ha:		0.70		4.56	2.81 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM SCRAPING POULTRY	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY EGGS POULTRY EGGS	Note 43 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		11.17 11.17	2.23
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	4.66 4.66	0.05
1-10 N leach	0.0866	0.0552	TOTAL N AMOUNTS IN KG AND % LEACHED	84.17 84.17	0.63
TOTAL	0.1177	0.0727	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other					0.2605 Note 46
Area with crop, ha		Total/year 1		0.74 1.17	Note 50
Natural background emissions, kg N2O-N/ha:		0.74		5.45	3.65 Note 51

SUMMARY SHEEP AND GOATS

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SHEEP DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	SHEEP MILK/MUTTON SHEEP MILK/MUTTON	Note 43 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			
Year N NH3	IPCC 1996	IPCC 2006			
1-10 N leach	0.0873	0.0449			
TOTAL	0.1266	0.0647			

N2O-N/N in food/beverage/fuel/other		0.7105			0.3630 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.80			Note 50
		0.80			Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING SHEEP	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	SHEEP MILK/MUTTON SHEEP MILK/MUTTON	Note 43 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			
Year N NH3	IPCC 1996	IPCC 2006			
1-10 N leach	0.0886	0.0400			
TOTAL	0.1248	0.0575			

N2O-N/N in food/beverage/fuel/other		0.7433			0.3421 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.76			Note 50
		0.76			Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER GOAT DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	GOAT MILK/MEAT GOAT MILK/MEAT	Note 43 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			
Year N NH3	IPCC 1996	IPCC 2006			
1-10 N leach	0.0881	0.0452			
TOTAL	0.1164	0.0612			

N2O-N/N in food/beverage/fuel/other		1.0469			0.5508 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.77			Note 50
		0.77			Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING GOATS	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	GOAT MILK/MEAT GOAT MILK/MEAT	Note 43 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			
Year N NH3	IPCC 1996	IPCC 2006			
1-10 N leach	0.0895	0.0490			
TOTAL	0.1282	0.0694			

N2O-N/N in food/beverage/fuel/other		1.1186			0.6050 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.77			Note 50
		0.77			Note 51

SUMMARY N CROP

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER GREEN MANURE HIGH N	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	HIGH N CROP CATTLE DAIRY	Note 43 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	3.27	3.27	1.63
Year N NH3	IPCC 1996	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	15.71	15.68	0.16
1-10 N leach	0.0714	TOTAL N AMOUNTS IN KG AND % LEACHED	81.18	81.05	0.61
TOTAL	0.1029	TOTAL N AMOUNTS IN KG AND %	100.16	100.00	

N2O-N/N in food/beverage/fuel/other		1.2577	0.7322	Note 46
Area with crop, ha	Total/year 1	1.46		
Natural background emissions, kg N2O-N/ha:	0.93			Note 50
	0.93	5.04		3.32 Note 51

N amount in reference crop year 2 after use of N crop as green manure, kg	11.20			Note 47
N amount in reference crop year 1 after synthetic N fertilizer, kg	40.00			Note 47
Relative value of green manure, %	28.00			

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER GREEN MANURE LOW N	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	LOW N CROP CATTLE DAIRY	Note 43 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	1.87	1.87	1.57
Year N NH3	IPCC 1996	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	14.20	14.19	0.14
1-10 N leach	0.0714	TOTAL N AMOUNTS IN KG AND % LEACHED	84.02	83.94	0.63
TOTAL	0.1031	TOTAL N AMOUNTS IN KG AND %	100.09	100.00	

N2O-N/N in food/beverage/fuel/other		2.2053	1.2542	Note 46
Area with crop, ha	Total/year 1	1.26		
Natural background emissions, kg N2O-N/ha:	0.80			Note 50
	0.80	4.93		3.15 Note 51

N amount in reference crop year 2 after use of N crop as green manure, kg	6.40			Note 47
N amount in reference crop year 1 after synthetic N fertilizer, kg	40.00			Note 47
Relative value of green manure, %	16.00			

SUMMARY FOOD, FUEL, AND WASTE

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH NO MANURE TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND NOTHING FOR FOOD FOOD Note 43 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 40.00 40.00 1.39 2.86 1.14 1.60 Note 45
 Year N NH3 ACCORDING TO IPCC 1996 IPCC 2006 2.20 2.20 0.02 0.02 0.02 Note 45
 1-10 N leach FIRST YEAR 0.0714 0.0400 57.80 57.80 1.45 0.43 Note 45
 TOTAL 0.0714 0.0400 100.00 100.00 Note 45

N2O-N/N in food/beverage/fuel/other 0.0714 0.0400 Note 46
 Area with crop, ha Total/year 1
 Natural background emissions, kg N2O-N/ha: 0.64 1.00 Note 50
 0.64 2.24 Note 51

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH NO MANURE TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND NOTHING FOR FUEL FUEL Note 43 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 40.00 40.00 1.39 2.86 1.14 1.60 Note 45
 Year N NH3 ACCORDING TO IPCC 1996 IPCC 2006 2.20 2.20 0.02 0.02 0.02 Note 45
 1-10 N leach FIRST YEAR 0.0714 0.0400 57.80 57.80 1.45 0.43 Note 45
 TOTAL 0.0714 0.0400 100.00 100.00 Note 45

N2O-N/N in food/beverage/fuel/other 0.0714 0.0400 Note 46
 Area with crop, ha Total/year 1
 Natural background emissions, kg N2O-N/ha: 0.64 1.00 Note 50
 0.64 2.24 Note 51

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH NO MANURE TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND NOTHING FOR WASTE DUMPED ELSEWHERE WITHOUT LEACHING WASTE, DUMPED ELSEWHERE Note 43 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 40.00 40.00 1.39 2.86 1.14 1.60 Note 45
 Year N NH3 ACCORDING TO IPCC 1996 IPCC 2006 2.20 2.20 0.02 0.02 0.02 Note 45
 1-10 N leach FIRST YEAR 0.0714 0.0400 57.80 57.80 1.45 0.43 Note 45
 TOTAL 0.0714 0.0400 100.00 100.00 Note 45

N2O-N/N in food/beverage/fuel/other No use No use Note 46
 Area with crop, ha Total/year 1
 Natural background emissions, kg N2O-N/ha: 0.64 1.00 Note 50
 0.64 2.24 Note 51

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH NO MANURE TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND NOTHING FOR WASTE DUMPED IN FIELD AND LOST TO LEACH WASTE DUMPED IN FIELD Note 43 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 0.00 0.00 1.39 3.86 1.14 1.90 Note 45
 Year N NH3 ACCORDING TO IPCC 1996 IPCC 2006 2.20 2.20 0.02 0.02 0.02 Note 45
 1-10 N leach FIRST YEAR 0.0964 0.0475 97.80 97.80 2.45 0.73 Note 45
 TOTAL 0.0964 0.0475 100.00 100.00 Note 45

N2O-N/N in food/beverage/fuel/other No use No use Note 46
 Area with crop, ha Total/year 1
 Natural background emissions, kg N2O-N/ha: 0.64 1.00 Note 50
 0.64 2.54 Note 51

SUMMARY CATTLE RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0726 0.0862 0.0437 0.0548
 TOTAL 0.0930 0.1168 0.0561 0.0721

N2O-N emission N2O-N emission
 IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 3.72 4.67 2.24 2.88

MIN MAX MIN MAX
 0.2674 0.3994 0.1632 0.2465

N2O-N/N in food/beverage/fuel/other

MIN MAX
 0.73 0.84
 MIN MAX
 0.73 1.16

4.55 5.41 2.97 3.62

Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:

SUMMARY PIGS RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0727 0.0830 0.0433 0.0516
 TOTAL 0.0870 0.1061 0.0508 0.0651

N2O-N emission N2O-N emission
 IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 3.48 4.25 2.03 2.6

MIN MAX MIN MAX
 0.1777 0.2155 0.1070 0.1322

N2O-N/N in food/beverage/fuel/other

MIN MAX
 0.71 0.78
 MIN MAX
 0.71 0.78

4.26 5.00 2.74 3.36

Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:

SUMMARY POULTRY RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0723 0.0866 0.0427 0.0552
 TOTAL 0.0849 0.1177 0.0481 0.0727

N2O-N emission N2O-N emission
 IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 3.4 4.71 1.93 2.91

MIN MAX MIN MAX
 0.1478 0.4216 0.0877 0.2605

N2O-N/N in food/beverage/fuel/other

MIN MAX
 0.67 0.81
 MIN MAX
 0.67 0.81

4.14 5.45 2.60 3.65

Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:

SUMMARY SHEEP AND GOATS RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0873 0.0895 0.0400 0.0490
 TOTAL 0.1164 0.1282 0.0575 0.0694

N2O-N emission N2O-N emission
 IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 4.66 5.13 2.3 2.77

MIN MAX MIN MAX
 0.7105 1.1186 0.3421 0.6050

N2O-N/N in food/beverage/fuel/other

MIN MAX
 0.76 0.80
 MIN MAX
 0.76 0.80

5.42 5.90 3.06 3.54

Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:

SUMMARY FODDER RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0723 0.0895 0.0400 0.0552
 TOTAL 0.0849 0.1282 0.0481 0.0727

N2O-N emission N2O-N emission
 IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 3.40 5.13 1.93 2.91

MIN MAX MIN MAX
 0.1478 1.1186 0.0877 0.6050

N2O-N/N in food/beverage/fuel/other

MIN MAX
 0.67 0.84
 MIN MAX
 0.67 1.16

4.14 5.90 2.60 3.65

Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha: