

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 Straw Cereal Crop Fuel/ Manure Final N2O-N emission
 # Store Amounts ganic propor # use & benefit 1/0 leach use # Uses #21-61 #71/ bev other handling N a- IPCC 1996
 Name 1/0 Store Field 1/0 Name 1/0 Name 1/0 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		13.9	13.8
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		13.7	13.7
1-10 N leach	0.0724	0.0436	TOTAL N AMOUNTS IN KG AND % LEACHED		72.9	72.5
TOTAL	0.0928	0.0565	TOTAL N AMOUNTS IN KG AND %		100.5	100.0

N2O-N in food/beverage/fuel/other

Year N	1	100.0	100.0	0	100	109	0	0	97.8	21	40.0	11.8	0.0	0.0	0.0	28.2	1.41	2.90	1.27	1.74	Note 47
1	Vol/NH3 N	YES	2.2 NON	100.00 WBB	1.000 NO	0.84	57.8 Cattle	0.84	0.0 Cattle	21	0.84	0.0 Cattle	0.0	0.0	0.0	2.3	0.04	0.0125	0.04	0.0100	Note 48
Year N	leach	1.022	1.000	1.00	1.000	0.591	0.0	0.0	57.8 Dairy	2	2	12.6 Liquid	0.0	0.0	0.0	5.5	1.45	0.0010	0.43	0.0050	Note 49
2	Vol/NH3 Cattle	YES	0.6	100.00 WWH	1.000 NO	0.67	12.1 Cattle	0.67	19.3	21	7.2	1.7	0.0	0.0	0.0	0.4	0.28	0.066	0.25	0.42	Note 47
Year N	leach	0.933	1.016	1.00	1.000	0.627	0.0	0.0	12.1 Dairy	2	2	2.6 Liquid	0.0	0.0	0.0	0.0	0.07	0.0125	0.07	0.0100	Note 48
Year N	21	1	5.2	100	11	0	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	100.00 WWH	1.000 NO	0.67	2.4 Cattle	0.67	2.4 Dairy	2	0.67	0.0	0.0	0.0	0.0	0.1	0.01	0.0125	0.01	0.0100	Note 48
Year N	leach	0.933	1.016	1.00	1.000	0.627	0.0	0.0	2.4 Dairy	2	2	0.5 Liquid	0.0	0.0	0.0	0.0	0.06	0.0010	0.02	0.0050	Note 49
Year N	21	1	1.0	100	11	0	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	100.00 WWH	1.000 NO	0.627	0.0	0.0	0.5 Cattle	2	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	leach	0.933	1.016	1.00	1.000	0.627	0.0	0.0	0.5 Dairy	2	2	0.1 Liquid	0.0	0.0	0.0	0.0	0.01	0.0010	0.00	0.0050	Note 49
Year N	21	1	0.2	100	1	0	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	100.00 SBA	1.000 NO	0.627	0.0	0.0	0.1 Cattle	2	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	leach	0.933	1.016	1.00	1.000	0.627	0.0	0.0	0.1 Dairy	2	2	0.0 Liquid	0.0	0.0	0.0	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year N	21	1	0.0	100	109	0	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	100.00 WBB	1.000 NO	0.627	0.0	0.0	0.0 Cattle	2	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	leach	0.933	1.016	1.00	1.000	0.627	0.0	0.0	0.0 Dairy	2	2	0.0 Liquid	0.0	0.0	0.0	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year N	21	1	0.0	100	11	0	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	100.00 WWH	1.000 NO	0.627	0.0	0.0	0.0 Cattle	2	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	leach	0.933	1.016	1.00	1.000	0.627	0.0	0.0	0.0 Dairy	2	2	0.0 Liquid	0.0	0.0	0.0	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year N	21	1	0.0	100	11	0	0	0	0.0	21	0.67	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	100.00 WWH	1.000 NO	0.627	0.0	0.0	0.0 Cattle	2	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	leach	0.933	1.016	1.00	1.000	0.627	0.0	0.0	0.0 Dairy	2	2	0.0 Liquid	0.0	0.0	0.0	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year N	21	1	0.0	100	11	0	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	100.00 WWH	1.000 NO	0.627	0.0	0.0	0.0 Cattle	2	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	leach	0.933	1.016	1.00	1.000	0.627	0.0	0.0	0.0 Dairy	2	2	0.0 Liquid	0.0	0.0	0.0	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year N	21	1	0.0	100	1	0	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	100.00 SBA	1.000 NO	0.627	0.0	0.0	0.0 Cattle	2	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	leach	0.933	1.016	1.00	1.000	0.627	0.0	0.0	0.0 Dairy	2	2	0.0 Liquid	0.0	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	0.68										0.15										0.03										0.01										0.00										0.00										0.00										0.00										0.00										0.00										0.00										0.87										1.27										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: 3.71
 Total anthropogenic: 3.71
 Total including natural: 4.58
 Note 51
 2.26 Note 51
 2.26 Note 51
 3.13 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CATTLE DAIRY Note 43
 AND CONTINUING WITH SEPARATED CATTLE MANURE 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 Name # 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	100.0	0	100	109	0	0	97.8	21	40.0	11.8	0.0	0.0	28.2
1-10 N leach	0.0786	0.1000	0.0435	0.0563	1.000	NO	57.8	Cattle	0.84	0.0	0.0	0.0	13.7
TOTAL	0.1000	0.0563	0.0435	0.0563	1.000	NO	57.8	Dairy	2	12.6	12.6	12.6	14.3
TOTAL N AMOUNTS IN KG AND % LEACHED													
TOTAL N AMOUNTS IN KG AND %													

N2O-N in food/beverage/fuel/other 0.2930

Year	N	1	100.0	0	100	109	0	0	97.8	21	40.0	11.8	0.0	0.0	28.2
1	Vol/NH3	N	YES	2.2	NON	100.00	WBB	1.000	NO	0	0.0	0.0	0.0	0.0	22
	N leach		1.022	1.000	1.000	0.591	0.0	0.0	57.8	Dairy	2	12.6	12.6	12.6	14.2
Year	N	22	27.2	0	100	11	0	0	18.7	21	6.5	1.5	0.0	0.0	4.9
2	Vol/NH3	Cattle	YES	2.3	6.2	NON	100.00	WWH	1.000	NO	0.67	0.0	0.0	0.0	22
	N leach	Sep	0.867	1.016	1.000	0.653	0.0	0.0	12.2	Cattle	2	2.5	2.5	2.5	0.09
Year	N	22	4.8	0	100	11	0	0	3.3	21	1.1	0.3	0.0	0.0	0.9
3	Vol/NH3	Cattle	YES	0.4	1.1	NON	100.00	WWH	1.000	NO	0.67	0.0	0.0	0.0	22
	N leach	Sep	0.867	1.016	1.000	0.653	0.0	0.0	2.1	Dairy	2	0.4	0.4	0.4	0.02
Year	N	22	0.8	0.8	0	100	11	0	0.6	21	0.2	0.0	0.0	0.0	0.2
4	Vol/NH3	Cattle	YES	0.1	0.2	NON	100.00	WWH	1.000	NO	0.67	0.0	0.0	0.0	22
	N leach	Sep	0.867	1.016	1.000	0.653	0.0	0.0	0.4	Dairy	2	0.1	0.1	0.1	0.01
Year	N	22	0.1	0.1	0	100	1	0	0.1	21	0.0	0.0	0.0	0.0	0.0
5	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	NO	0.65	0.0	0.0	0.0	22
	N leach	Sep	0.867	1.016	1.000	0.653	0.0	0.0	0.1	Dairy	2	0.0	0.0	0.0	0.00
Year	N	22	0.0	0.0	0	100	109	0	0.0	21	0.0	0.0	0.0	0.0	0.0
6	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBB	1.000	NO	0.84	0.0	0.0	0.0	22
	N leach	Sep	0.867	1.016	1.000	0.653	0.0	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.00
Year	N	22	0.0	0.0	0	100	11	0	0.0	21	0.0	0.0	0.0	0.0	0.0
7	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	NO	0.67	0.0	0.0	0.0	22
	N leach	Sep	0.867	1.016	1.000	0.653	0.0	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.00
Year	N	22	0.0	0.0	0	100	11	0	0.0	21	0.0	0.0	0.0	0.0	0.0
8	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	NO	0.67	0.0	0.0	0.0	22
	N leach	Sep	0.867	1.016	1.000	0.653	0.0	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.00
Year	N	22	0.0	0.0	0	100	11	0	0.0	21	0.0	0.0	0.0	0.0	0.0
9	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	NO	0.67	0.0	0.0	0.0	22
	N leach	Sep	0.867	1.016	1.000	0.653	0.0	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.00
Year	N	22	0.0	0.0	0	100	1	0	0.0	21	0.0	0.0	0.0	0.0	0.0
10	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	NO	0.65	0.0	0.0	0.0	22
	N leach	Sep	0.867	1.016	1.000	0.653	0.0	0.0	0.0	Dairy	2	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 0.68 0.13 0.02 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.84 1.24

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 4.00
 Total anthropogenic 4.00
 Total including natural 4.84
 Note 51 2.25 Note 51 2.25 Note 51 3.09 Note 51

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 Name # 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										13.2	13.2
1-10 N leach	0.0853	0.0539	TOTAL N AMOUNTS IN KG AND % LEACHED										4.5	4.5
TOTAL	0.1142	0.0702	TOTAL N AMOUNTS IN KG AND %										82.3	82.3
			TOTAL N AMOUNTS IN KG AND %										100.0	100.0

N2O-N in food/beverage/fuel/other 0.3463 0.2128 Note 46

Year N	1	100.0	100.0	0	100	109	0	0	97.8	21	40.0	11.8	0.0	0.0	0.0	24	28.2	1.94	3.41	1.70	2.15	2.81	Note 45
1	Vol/NH3 N	YES	2.2 NON	100.00	WBB	1.000	NO	0	57.8	Cattle	0.84	0.0	0.0	0.0	0.0	Cattle	0.0	0.02	0.125	0.02	0.0100	Note 48	
Year N	leach	1.022	1.000	1.00	1.000	0.591	0.0	0	57.8	Dairy	2	12.6	Graz	0.0	0.0	12.6	Graz	1.45	0.0200	0.43	0.0200	Note 49	
2	Vol/NH3	Cattle	YES	28.2	0	100	11	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	
Year N	leach	Graz	0.484	1.000	1.00	1.000	0.806	0.0	21.1	Cattle	0.67	0.0	0.0	0.0	0.0	Cattle	0.0	0.02	0.125	0.02	0.0100	Note 48	
3	Vol/NH3	Cattle	YES	3.9	0	100	11	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	
Year N	leach	Graz	0.484	1.000	1.00	1.000	0.806	0.0	2.9	Cattle	0.67	0.0	0.0	0.0	0.0	Cattle	0.0	0.00	0.125	0.00	0.0100	Note 48	
4	Vol/NH3	Cattle	YES	0.5	0	100	11	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	
Year N	leach	Graz	0.484	1.000	1.00	1.000	0.806	0.0	0.4	Cattle	0.67	0.0	0.0	0.0	0.0	Cattle	0.0	0.00	0.125	0.00	0.0100	Note 48	
5	Vol/NH3	Cattle	YES	0.1	0	100	1	0	0.1	21	0.0	0.0	0.0	0.0	0.0	24	0.0	0.01	0.0200	0.00	0.0200	Note 49	
Year N	leach	Graz	0.484	1.000	1.00	1.000	0.806	0.0	0.1	Dairy	2	0.0	0.0	0.0	0.0	Graz	0.0	0.00	0.0200	0.00	0.0200	Note 47	
6	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	0.1	Cattle	0.65	0.0	0.0	0.0	0.0	Cattle	0.0	0.00	0.125	0.00	0.0100	Note 48	
Year N	leach	Graz	0.484	1.000	1.00	1.000	0.806	0.0	0.1	Dairy	2	0.0	0.0	0.0	0.0	Graz	0.0	0.00	0.125	0.00	0.0200	Note 49	
7	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBB	0.0	Cattle	0.84	0.0	0.0	0.0	0.0	24	0.0	0.00	0.125	0.00	0.0100	Note 47	
Year N	leach	Graz	0.484	1.000	1.00	1.000	0.806	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	Graz	0.0	0.00	0.125	0.00	0.0200	Note 48	
8	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	0.0	Cattle	0.67	0.0	0.0	0.0	0.0	24	0.0	0.00	0.125	0.00	0.0100	Note 47	
Year N	leach	Graz	0.484	1.000	1.00	1.000	0.806	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	Graz	0.0	0.00	0.125	0.00	0.0200	Note 49	
9	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	0.0	Cattle	0.67	0.0	0.0	0.0	0.0	24	0.0	0.00	0.125	0.00	0.0100	Note 48	
Year N	leach	Graz	0.484	1.000	1.00	1.000	0.806	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	Graz	0.0	0.00	0.125	0.00	0.0200	Note 49	
10	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	0.0	Cattle	0.65	0.0	0.0	0.0	0.0	24	0.0	0.00	0.125	0.00	0.0100	Note 47	
Year N	leach	Graz	0.484	1.000	1.00	1.000	0.806	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	Graz	0.0	0.00	0.125	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 Total/year 1

Area with crop, ha 0.68 0.08 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.78 1.14 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 4.57
 Total anthropogenic 4.57
 Total including natural 5.35
 Note 51
 Note 51
 Note 51
 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CEREAL Straw Crop Use Fodder: N crop Food/ Fuel/ Manure Final N2O-N emission
AND CONTINUING WITH CATTLE DEEP LITTER TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR WINTER WHEAT FOR # Name mounts Each Total IPCC 1996 IPCC 2006

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

Table with 12 columns: Year, N, NH3, N leach, 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, NH3, N leach, etc. Rows 1-10 showing N2O-N emissions for various scenarios and crop types.

Year Area with crop, ha

Possible additional non IPCC N2O-N emissions

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

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

Natural background emissions, kg N2O-N/ha:

Total IPCC and non IPCC N2O

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 Cereal Straw 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										11.7	11.7
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3										4.6	4.6
1-10 N leach	0.0860	0.0546	TOTAL N AMOUNTS IN KG AND % LEACHED										83.7	83.7
TOTAL	0.1166	0.0719	TOTAL N AMOUNTS IN KG AND %										100.0	100.0

N2O-N/N in food/beverage/fuel/other 0.3986 0.2457 Note 46

Year N	1	100.0	100.0	0	100	109	0	0	97.8	22	40.0	10.4	0.0	0.0	0.0	24	29.6	1.97	3.44	1.73	2.18	Note 47
1	Vol/NH3 N	YES	2.2 NON	100.00 WBB	1.000 NO	0.84	0.0	0.0	57.8 Cattle	0.84	0.84	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.0125	0.02	0.0100	Note 48
Year N	24	1	29.6	0	100	11	0	0	27.5 Beef	2	5.3	1.1	0.0	0.0	0.0	24	4.2	1.45	0.0200	0.43	0.0200	Note 49
2	Vol/NH3 Cattle	YES	2.1 NON	100.00 WWH	1.000 NO	0.67	0.0	0.0	22.2 Cattle	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.02	0.0125	0.02	0.0100	Note 48
Year N	24	1	4.2	0	100	11	0	0	3.9 Beef	2	0.8	0.2	0.0	0.0	0.0	24	0.6	0.07	0.15	0.06	0.08	Note 47
3	Vol/NH3 Cattle	YES	0.3 NON	100.00 WWH	1.000 NO	0.67	0.0	0.0	3.2 Cattle	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	24	1	0.6	0	100	11	0	0	0.6 Beef	2	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 WWH	1.000 NO	0.67	0.0	0.0	0.5 Cattle	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	24	1	0.1	0	100	1	0	0	0.1 Beef	2	0.0	0.0	0.0	0.0	0.0	24	0.0	0.01	0.0200	0.00	0.0200	Note 49
5	Vol/NH3 Cattle	YES	0.0 NON	100.00 SBA	1.000 NO	0.65	0.0	0.0	0.1 Cattle	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	24	1	0.0	0	100	109	0	0	0.1 Beef	2	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.0200	0.00	0.0200	Note 49
6	Vol/NH3 Cattle	YES	0.0 NON	100.00 WBB	1.000 NO	0.84	0.0	0.0	0.0 Cattle	0.84	0.84	0.0	0.0	0.0	0.0	24	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	24	1	0.0	0	100	11	0	0	0.0 Beef	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0200	Note 49
7	Vol/NH3 Cattle	YES	0.0 NON	100.00 WWH	1.000 NO	0.67	0.0	0.0	0.0 Cattle	0.67	0.67	0.0	0.0	0.0	0.0	24	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	24	1	0.0	0	100	11	0	0	0.0 Beef	2	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.0200	0.00	0.0200	Note 49
8	Vol/NH3 Cattle	YES	0.0 NON	100.00 WWH	1.000 NO	0.67	0.0	0.0	0.0 Cattle	0.67	0.67	0.0	0.0	0.0	0.0	24	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	24	1	0.0	0	100	1000	0	0	0.0 Beef	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.0200	0.00	0.0200	Note 49
9	Vol/NH3 Cattle	YES	0.0 NON	100.00 WWH	1.000 NO	0.67	0.0	0.0	0.0 Cattle	0.67	0.67	0.0	0.0	0.0	0.0	24	0.0	0.00	0.0125	0.00	0.0100	Note 48
Year N	24	1	0.0	0	100	1000	0	0	0.0 Beef	2	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.0200	0.00	0.0200	Note 49
10	Vol/NH3 Cattle	YES	0.0 NON	100.00 SBA	1.000 NO	0.65	0.0	0.0	0.0 Cattle	0.65	0.65	0.0	0.0	0.0	0.0	24	0.0	0.00	0.0125	0.00	0.0100	Note 48
N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.806	0.0	0.0 Beef	2	0.0	0.0	0.0	0.0	0.0	0.0	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 0.68 0.09 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.78 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 4.66
 Total anthropogenic 4.66
 Total including natural 5.45
 Note 51
 Note 51
 Note 51
 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE
 AND CONTINUING WITH LIQUID PIG MANURE TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR PIG PORK PIG PORK

Year	Fertilizer/manure #	Store Name	Amounts 1/0	Field 1/0	Or-ganic 1/0	Nnorm proportion, %	Crop #	Straw use & leach 1/0	Cereal benefit 1/0	Use #	Foeder: Uses #21-61	Food Fed	N crop #71-#72	Food bev #8	Fuel/other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total	Note		
Total N	1	1	100.0	100.0	0	100	109	0	0	97.8	32	40.0	16.7	0.0	0.0	0.0	31	19.6	1.65	3.47	1.45	2.09	Notes 44-45
Year N NH3			0.0	2.2	NON	100.00	WBB	1.000	NO	57.8	Pig	0.84					0.0	3.3	0.05	0.125	0.12	1.24	1.72
Year N leach			1.000	1.000	ORG	1.00	1.000	0.591	0.0	57.8	Pork	3			12.6	Liquid		0.0	1.45	0.0010	0.43	0.0050	Notes 48-49
Year 2			20.0	19.5	0	100	11	0	0	14.6	32	5.8	2.4	0.0	0.0	0.0	31	3.4	0.21	0.49	0.19	0.31	Notes 47-48
Year N leach			1.000	4.9	NON	100.00	WWWH	1.000	NO	8.8	Pig	0.67					0.0	0.5	0.06	0.125	0.06	0.100	Notes 48-49
Year 3			2.9	2.8	0	100	11	0	0	2.1	32	0.9	0.4	0.0	0.0	0.0	31	0.5	0.03	0.07	0.03	0.05	Notes 47-48
Year N leach			1.000	0.7	NON	100.00	WWWH	1.000	NO	1.3	Pig	0.67					0.1	0.1	0.01	0.125	0.01	0.100	Notes 48-49
Year 4			0.4	0.4	0	100	11	0	0	0.3	32	0.1	0.1	0.0	0.0	0.0	31	0.1	0.00	0.01	0.00	0.01	Notes 47-48
Year N leach			1.000	0.1	NON	100.00	WWWH	1.000	NO	0.2	Pig	0.67					0.0	0.0	0.00	0.125	0.00	0.100	Notes 48-49
Year 5			0.1	0.1	0	100	1	0	0	0.0	32	0.0	0.0	0.0	0.0	0.0	31	0.0	0.00	0.00	0.00	0.00	Notes 47-48
Year N leach			1.000	0.0	NON	100.00	SBA	1.000	NO	0.0	Pig	0.65					0.0	0.0	0.00	0.125	0.00	0.100	Notes 48-49
Year 6			0.0	0.0	0	100	109	0	0	0.0	32	0.0	0.0	0.0	0.0	0.0	31	0.0	0.00	0.00	0.00	0.00	Notes 47-48
Year N leach			1.000	0.0	NON	100.00	WBB	1.000	NO	0.0	Pork	3					0.0	0.0	0.00	0.125	0.00	0.100	Notes 48-49
Year 7			0.0	0.0	0	100	11	0	0	0.0	32	0.84					0.0	0.0	0.00	0.125	0.00	0.100	Notes 47-48
Year N leach			1.000	0.0	NON	100.00	WWWH	1.000	NO	0.0	Pig	0.67					0.0	0.0	0.00	0.125	0.00	0.100	Notes 48-49
Year 8			0.0	0.0	0	100	11	0	0	0.0	32	0.0	0.0	0.0	0.0	0.0	31	0.0	0.00	0.00	0.00	0.00	Notes 47-48
Year N leach			1.000	0.0	NON	100.00	WWWH	1.000	NO	0.0	Pig	0.67					0.0	0.0	0.00	0.125	0.00	0.100	Notes 48-49
Year 9			0.0	0.0	0	100	11	0	0	0.0	32	0.0	0.0	0.0	0.0	0.0	31	0.0	0.00	0.00	0.00	0.00	Notes 47-48
Year N leach			1.000	0.0	NON	100.00	WWWH	1.000	NO	0.0	Pig	0.67					0.0	0.0	0.00	0.125	0.00	0.100	Notes 48-49
Year 10			0.0	0.0	0	100	1	0	0	0.0	32	0.0	0.0	0.0	0.0	0.0	31	0.0	0.00	0.00	0.00	0.00	Notes 47-48
Year N leach			1.000	0.0	NON	100.00	SBA	1.000	NO	0.0	Pig	0.65					0.0	0.0	0.00	0.125	0.00	0.100	Notes 48-49

N2O-N in food/beverage/fuel/other
 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	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		0.68	0.12	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.82	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	0.00	Total IPCC and non IPCC N2O 3.47
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	Kind of source Current crops
Increased soil N emissions, kg N2O-N/ha:		1.00	0.68	0.12	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.82	Total anthropogenic Total including natural
Natural background emissions, kg N2O-N/ha:													4.29

Year
 Note 43
 Note 43
 Note 44
 Note 44
 Note 44
 Note 45
 Note 45
 Note 45
 Note 46
 Note 47
 Note 48
 Note 49
 Note 47
 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 CEREAL TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND PIG PORK
 AND CONTINUING WITH SEPARATED PIG MANURE TO PRODUCE WINTER WHEAT FOR PIG PORK

Year Fertilizer/manure # Store Amounts Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Crop use & leach Straw used 1/0 Cereal benefit 1/0 N crop Food/#71-#72 Fuel/other #9 Manure handling # Name Final N a-mounts N2O-N emission IPCC 1996 N2O-N emission 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 1-10	ACCORDING TO FIRST YEAR TOTAL										TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 LEACHED									
N leach	100.0	0	100	109	0	0	0	0	0	0	16.7	0.0	0.0	0.0	18.6	18.5				
N leach	2.2	NON	100.00	WBB	1.000	NO	0.591	0.0	0.0	0.84	0.0	0.0	0.0	0.0	15.8	15.7				
N leach	15.4	0	100	11	0	0	0	0	0	3	1.7	0.0	0.0	12.6	12.6	12.6				
N leach	3.8	NON	100.00	WWH	1.000	NO	0.653	0.0	0.0	0.67	0.0	0.0	0.0	0.0	0.4	0.4				
N leach	1.5	0	100	11	0	0	0	0	0	3	0.2	0.0	0.0	1.6	1.6	1.6				
N leach	0.4	NON	100.00	WWH	1.000	NO	0.653	0.0	0.0	0.67	0.0	0.0	0.0	0.0	0.0	0.0				
N leach	0.2	0	100	11	0	0	0	0	0	3	0.0	0.0	0.0	0.2	0.2	0.2				
N leach	0.0	NON	100.00	WWH	1.000	NO	0.653	0.0	0.0	0.67	0.0	0.0	0.0	0.0	0.0	0.0				
N leach	0.0	0	100	1	0	0	0	0	0	3	0.0	0.0	0.0	0.0	0.0	0.0				
N leach	0.0	NON	100.00	SBA	1.000	NO	0.653	0.0	0.0	0.65	0.0	0.0	0.0	0.0	0.0	0.0				
N leach	0.0	0	100	109	0	0	0	0	0	3	0.0	0.0	0.0	0.0	0.0	0.0				
N leach	0.0	NON	100.00	WBB	1.000	NO	0.653	0.0	0.0	0.84	0.0	0.0	0.0	0.0	0.0	0.0				
N leach	0.0	0	100	11	0	0	0	0	0	3	0.0	0.0	0.0	0.0	0.0	0.0				
N leach	0.0	NON	100.00	WWH	1.000	NO	0.653	0.0	0.0	0.67	0.0	0.0	0.0	0.0	0.0	0.0				
N leach	0.0	0	100	11	0	0	0	0	0	3	0.0	0.0	0.0	0.0	0.0	0.0				
N leach	0.0	NON	100.00	WWH	1.000	NO	0.653	0.0	0.0	0.67	0.0	0.0	0.0	0.0	0.0	0.0				
N leach	0.0	0	100	11	0	0	0	0	0	3	0.0	0.0	0.0	0.0	0.0	0.0				
N leach	0.0	NON	100.00	SBA	1.000	NO	0.653	0.0	0.0	0.65	0.0	0.0	0.0	0.0	0.0	0.0				
N leach	0.0	0	100	1	0	0	0	0	0	3	0.0	0.0	0.0	0.0	0.0	0.0				

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

Year 1	1	100.0	0	100	109	0	0	0	0	0	16.7	0.0	0.0	0.0	23.3	23.3
N leach	1.022	1.000	1.022	1.000	1.000	0.591	0.0	0.0	0.0	0.84	0.0	0.0	0.0	4.2	4.2	
N leach	19.5	19.5	19.5	19.5	19.5	0	0	0	0	3	1.7	0.0	0.0	0.0	0.0	0.0
N leach	4.2	4.2	4.2	4.2	4.2	0	0	0	0	0.67	0.0	0.0	0.0	0.4	0.4	
N leach	2.0	2.0	2.0	2.0	2.0	0	0	0	0	3	0.2	0.0	0.0	0.2	0.2	
N leach	0.4	0.4	0.4	0.4	0.4	0	0	0	0	0.67	0.0	0.0	0.0	0.0	0.0	
N leach	0.2	0.2	0.2	0.2	0.2	0	0	0	0	3	0.0	0.0	0.0	0.0	0.0	
N leach	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.67	0.0	0.0	0.0	0.0	0.0	
N leach	0.0	0.0	0.0	0.0	0.0	0	0	0	0	3	0.0	0.0	0.0	0.0	0.0	
N leach	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.65	0.0	0.0	0.0	0.0	0.0	
N leach	0.0	0.0	0.0	0.0	0.0	0	0	0	0	3	0.0	0.0	0.0	0.0	0.0	
N leach	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.65	0.0	0.0	0.0	0.0	0.0	
N leach	0.0	0.0	0.0	0.0	0.0	0	0	0	0	3	0.0	0.0	0.0	0.0	0.0	
N leach	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.65	0.0	0.0	0.0	0.0	0.0	
N leach	0.0	0.0	0.0	0.0	0.0	0	0	0	0	3	0.0	0.0	0.0	0.0	0.0	
N leach	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.65	0.0	0.0	0.0	0.0	0.0	
N leach	0.0	0.0	0.0	0.0	0.0	0	0	0	0	3	0.0	0.0	0.0	0.0	0.0	
N leach	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.65	0.0	0.0	0.0	0.0	0.0	

Year 1 0.68 0.08 0.01 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

Area with crop, ha 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: 0.68
 Total IPCC and non IPCC N2O 3.60
 Total anthropogenic 3.60
 Total including natural 4.37
 Note 51 2.05 Note 51 2.05 Note 51 2.82 Note 51

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

Year Fertilizer/manure Or- Nnorm Crop Straw Crop Fuel/ Fuel/ N2O-N emission N2O-N emission
 # Store Amounts ganic propor # use & #71/ bever other IPCC 1996 IPCC 2006
 Name 1/0 Store Field 1/0 Name 1/0 leach use # 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															19.7	19.7
Year N NH3	ACCORDING TO IPCC 1996 IPCC 2006															4.1	4.1
1-10 N leach	FIRST YEAR 0.0828 0.0514															76.2	76.2
	TOTAL 0.1059 0.0649															100.0	100.0

TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3

Year	N	Vol/NH3	N	YES	1	100.0	100.0	0	100	109	0	0	0	97.8	32	40.0	16.7	0.0	0.0	0.0	23.3	1.85	3.31	1.60	2.06
1	N leach	1.022	1.000	0.0	2.2	NON	100.00	WBB	1.000	NO	1.000	NO	0.84	57.8	Pig	0.84	0.0	0.0	0.0	0.0	0.0	0.02	0.0125	0.02	0.0100
Year	N	34	1	23.3	0	100	11	0	0	0	0	0	21.7	32	6.1	2.5	0.0	0.0	0.0	12.6	3.5	0.38	0.78	0.32	0.46
2	N leach	0.699	1.000	0.0	1.6	NON	100.00	WWH	1.000	NO	1.000	NO	0.67	15.6	Pig	0.67	0.0	0.0	0.0	0.0	0.0	0.02	0.0125	0.02	0.0100
Year	N	34	1	3.5	0	100	11	0	0	0	0	0	3.3	32	0.9	0.4	0.0	0.0	0.0	2.9	0.5	0.06	0.12	0.05	0.07
3	N leach	0.699	1.000	0.0	0.2	NON	100.00	WWH	1.000	NO	1.000	NO	0.67	2.4	Pig	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
Year	N	34	1	0.5	0.5	0	100	11	0	0	0	0	2.4	32	0.1	0.1	0.0	0.0	0.0	0.4	0.1	0.01	0.02	0.01	0.01
4	N leach	0.699	1.000	0.0	0.0	NON	100.00	WWH	1.000	NO	1.000	NO	0.67	0.4	Pig	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
Year	N	34	1	0.1	0.1	0	100	1	0	0	0	0	0.4	32	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.01	0.0200	0.00	0.0200
5	N leach	0.699	1.000	0.0	0.0	NON	100.00	SBA	1.000	NO	1.000	NO	0.65	0.1	Pig	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
Year	N	34	1	0.0	0.0	0	100	109	0	0	0	0	0.1	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
6	N leach	0.699	1.000	0.0	0.0	NON	100.00	WBB	1.000	NO	1.000	NO	0.84	0.0	Pig	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
Year	N	34	1	0.0	0.0	0	100	11	0	0	0	0	0.0	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
7	N leach	0.699	1.000	0.0	0.0	NON	100.00	WWH	1.000	NO	1.000	NO	0.67	0.0	Pig	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
Year	N	34	1	0.0	0.0	0	100	11	0	0	0	0	0.0	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
8	N leach	0.699	1.000	0.0	0.0	NON	100.00	WWH	1.000	NO	1.000	NO	0.67	0.0	Pig	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
Year	N	34	1	0.0	0.0	0	100	11	0	0	0	0	0.0	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
9	N leach	0.699	1.000	0.0	0.0	NON	100.00	WWH	1.000	NO	1.000	NO	0.67	0.0	Pig	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
Year	N	34	1	0.0	0.0	0	100	1	0	0	0	0	0.0	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
10	N leach	0.699	1.000	0.0	0.0	NON	100.00	SBA	1.000	NO	1.000	NO	0.65	0.0	Pig	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
Year	N	34	1	0.0	0.0	0	100	1000	0.720	0.0	0.720	0.0	0.0	3	Pork	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0200	0.00	0.0200

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		0.68	0.10	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	1.18

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	0.80	1.18
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural background emissions, kg N2O-N/ha:	Value	1.00	0.68	0.10	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.80	1.18

Total IPCC and non IPCC N2O	4.24	4.24	5.04
Kind of source	Current crops	Total anthropogenic	Total including natural
Note 51	2.60	Note 51	3.40

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

Table with 15 columns: Year, Fertilizer/manure #, Store, Amounts, Field, Or-ganic, Nnorm, Crop, Straw, Crop use, Use, Name, Food, N crop, Fuel/other, Manure, Final, N2O-N emission, Each, Total, Note. Rows 44-45.

Table with 15 columns: Year, N, NH3, leach, Ratio of N2O-N, IPCC 1996, IPCC 2006, First Year, Total, N2O-N in food/beverage/fuel/other, Year 1-10, Total, Note. Rows 46-51.

Year, Area with crop, ha, Possible additional non IPCC N2O-N emissions, N residues emissions, ratio of N2O-N to N, Increased soil N emissions, kg N2O-N/ha, Natural background emissions, kg N2O-N/ha, Total IPCC and non IPCC N2O, Kind of source, Total anthropogenic, Total including natural, Note 50-51.

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop Fuel/ other POULTRY MEAT
 AND CONTINUING WITH POULTRY DEEP LITTER TO PRODUCE use #71/ be# other POULTRY MEAT

Year	Fertilizer/manure #	Store 1/0	Amounts Store 1/0	Field 1/0	Or-ganic 1/0	Nnorm propo- tion, %	Crop # Name	Use # Name	Food Fed	N crop #72	Food #8	Fuel/ be# other #9	Manure handling # Name	Final N a- mounts	N2O-N emission IPCC 1996	Total Each	N2O-N emission IPCC 2006	Total Each	
Total N																1.74	3.48	1.29	1.92
Year N NH3	1	100.0	0.0	100.0	2.2 NON	100.00 WBB	1000 NO	1.000 NO	0.84	0.0	0.0	0.0	0.0	43	19.6	1.62	3.16	1.19	1.73
N leach					ORG	1.00 1.000	0.591 0.0	57.8 Meat	4	0.0	0.0	12.6 Deep	0.0	Poultry	7.8	0.10	0.0125	0.10	0.0100
Year 2	43	11.9	0.0	9.8	9.8	100 WWH	1000 NO	0.760 0.0	0.67	0.0	0.0	0.0	43	0.9	0.09	1.45	0.0200	0.43	0.0050
N leach					ORG	1.00 1.000	1.000 NO	0.760 0.0	4	0.0	0.0	0.0	0.0	Deep	0.3	0.05	0.0125	0.05	0.0100
Year 3	43	0.5	0.0	0.4	0.4	100 WWH	1000 NO	0.760 0.0	0.67	0.0	0.0	0.0	43	0.0	0.04	0.01	0.0200	0.04	0.0050
N leach					ORG	1.00 1.000	1.000 NO	0.760 0.0	4	0.0	0.0	0.0	0.0	Deep	0.0	0.00	0.0125	0.00	0.0100
Year 4	43	0.0	0.0	0.0	0.1	100 WWH	1000 NO	0.760 0.0	0.67	0.0	0.0	0.0	43	0.0	0.00	0.0125	0.00	0.0050	
N leach					ORG	1.00 1.000	1.000 NO	0.760 0.0	4	0.0	0.0	0.0	0.0	Deep	0.0	0.00	0.0200	0.00	0.0100
Year 5	43	0.0	0.0	0.0	0.0	100 SBA	1000 NO	0.760 0.0	0.65	0.0	0.0	0.0	43	0.0	0.00	0.0125	0.00	0.0050	
N leach					ORG	1.00 1.000	1.000 NO	0.760 0.0	4	0.0	0.0	0.0	0.0	Deep	0.0	0.00	0.0200	0.00	0.0100
Year 6	43	0.0	0.0	0.0	0.0	100 WBB	1000 NO	0.760 0.0	0.84	0.0	0.0	0.0	43	0.0	0.00	0.0125	0.00	0.0050	
N leach					ORG	1.00 1.000	1.000 NO	0.760 0.0	4	0.0	0.0	0.0	0.0	Deep	0.0	0.00	0.0200	0.00	0.0100
Year 7	43	0.0	0.0	0.0	0.0	100 WWH	1000 NO	0.760 0.0	0.67	0.0	0.0	0.0	43	0.0	0.00	0.0125	0.00	0.0050	
N leach					ORG	1.00 1.000	1.000 NO	0.760 0.0	4	0.0	0.0	0.0	0.0	Deep	0.0	0.00	0.0200	0.00	0.0100
Year 8	43	0.0	0.0	0.0	0.0	100 WWH	1000 NO	0.760 0.0	0.67	0.0	0.0	0.0	43	0.0	0.00	0.0125	0.00	0.0050	
N leach					ORG	1.00 1.000	1.000 NO	0.760 0.0	4	0.0	0.0	0.0	0.0	Deep	0.0	0.00	0.0200	0.00	0.0100
Year 9	43	0.0	0.0	0.0	0.0	100 WWH	1000 NO	0.760 0.0	0.67	0.0	0.0	0.0	43	0.0	0.00	0.0125	0.00	0.0050	
N leach					ORG	1.00 1.000	1.000 NO	0.760 0.0	4	0.0	0.0	0.0	0.0	Deep	0.0	0.00	0.0200	0.00	0.0100
Year 10	43	0.0	0.0	0.0	0.0	100 SBA	1000 NO	0.760 0.0	0.65	0.0	0.0	0.0	43	0.0	0.00	0.0125	0.00	0.0050	
N leach					ORG	1.00 1.000	1.000 NO	0.760 0.0	4	0.0	0.0	0.0	0.0	Deep	0.0	0.00	0.0200	0.00	0.0100

N2O-N in food/beverage/fuel/other

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	0.68	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.06	1.06
Possible additional non IPCC N2O-N emissions	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.48	3.48
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	3.48	3.48
Increased soil N emissions, kg N2O-N/ha:	1.00	0.68	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.20	4.20
Natural background emissions, kg N2O-N/ha:	1.00	0.68	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.20	4.20

Kind of source
 Current crops
 Total anthropogenic
 Total including natural

Total IPCC and non IPCC N2O
 3.48
 3.48
 4.20

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

Year	Fertilizer/manure #	Store 1/0	Field 1/0	Or-ganic 1/0	Nnorm propor 1/0	Crop #	Straw used 1/0	Use Name	Fodder: Fed	N crop #71/72	Fuel/ bev #8	Manure handling #	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total	Year	2006	2007	2008	2009	2010	Total
------	---------------------	-----------	-----------	--------------	------------------	--------	----------------	----------	-------------	---------------	--------------	-------------------	------------------	--------------------------	--------------------------	-------	------	------	------	------	------	------	-------

Total N	RATIO OF N ₂ O-N TO N IN FIRST CROP																					
Year	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED																			
1-10 N leach	0.0810	0.0496	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3																			
TOTAL	0.0995	0.0598	TOTAL N AMOUNTS IN KG AND % LEACHED																			
			TOTAL N AMOUNTS IN KG AND %																			

Year	N	Vol/NH3	N	YES	100.0	100.0	0	100	109	0	0	97.8	42	40.0	20.4	0.0	0.0	19.6	22.4	3.7	3.7	2.09	3.98	1.80	2.39
1						2.2	NON	100.00	WBB	1.000	NO	57.8	Poultry	0.84				0.0	44			1.77	3.24	1.53	1.98
	N leach	1.022	1.000	1.000						0.591	0.0	57.8	Meat	4			12.6	Scrap			0.02	0.0125	0.02	0.0100	
Year		44	1	19.6	0	100	11			0	0	18.2	42	3.5	1.8	0.0	0.0	1.7	44			1.45	0.0200	0.43	0.0200
2										1.000	NO	14.7	Poultry	0.67				0.0				0.01	0.0125	0.01	0.0100
	N leach	Scrap	0.484	1.000						0.806	0.0	14.7	Meat	4			2.5	Scrap			0.37	0.0200	0.11	0.0200	
Year		44	1	1.7	0	100	11			0	0	1.6	42	0.3	0.2	0.0	0.0	0.2	44			0.03	0.06	0.02	0.03
3										1.000	NO	1.3	Poultry	0.67				0.0				0.00	0.0125	0.00	0.0100
	N leach	Scrap	0.484	1.000						0.806	0.0	1.3	Meat	4			0.2	Scrap			0.03	0.0200	0.01	0.0200	
Year		44	1	0.2	0	100	11			1.000	NO	0.1	Poultry	0.67				0.0				0.00	0.0125	0.00	0.0100
4										1.000	NO	0.1	Meat	4				0.0				0.00	0.0125	0.00	0.0100
	N leach	Scrap	0.484	1.000						0.806	0.0	0.1	Meat	4			0.0	Scrap			0.00	0.0200	0.00	0.0200	
Year		44	1	0.0	0	100	1			1.000	NO	0.0	Poultry	0.65				0.0				0.00	0.00	0.00	0.00
5										1.000	NO	0.0	Poultry	0.65				0.0				0.00	0.0125	0.00	0.0100
	N leach	Scrap	0.484	1.000						0.806	0.0	0.0	Meat	4			0.0	Scrap			0.00	0.0200	0.00	0.0200	
Year		44	1	0.0	0	100	109			1.000	NO	0.0	Poultry	0.84				0.0				0.00	0.0125	0.00	0.0100
6										1.000	NO	0.0	Meat	4				0.0				0.00	0.0200	0.00	0.0200
	N leach	Scrap	0.484	1.000						0.806	0.0	0.0	Meat	4			0.0	Scrap			0.00	0.0125	0.00	0.0200	
Year		44	1	0.0	0	100	11			1.000	NO	0.0	Poultry	0.67				0.0				0.00	0.0125	0.00	0.0100
7										1.000	NO	0.0	Meat	4				0.0				0.00	0.0200	0.00	0.0200
	N leach	Scrap	0.484	1.000						0.806	0.0	0.0	Meat	4			0.0	Scrap			0.00	0.0125	0.00	0.0200	
Year		44	1	0.0	0	100	11			1.000	NO	0.0	Poultry	0.67				0.0				0.00	0.0125	0.00	0.0100
8										1.000	NO	0.0	Meat	4				0.0				0.00	0.0200	0.00	0.0200
	N leach	Scrap	0.484	1.000						0.806	0.0	0.0	Meat	4			0.0	Scrap			0.00	0.0125	0.00	0.0200	
Year		44	1	0.0	0	100	11			1.000	NO	0.0	Poultry	0.67				0.0				0.00	0.0125	0.00	0.0100
9										1.000	NO	0.0	Meat	4				0.0				0.00	0.0200	0.00	0.0200
	N leach	Scrap	0.484	1.000						0.806	0.0	0.0	Meat	4			0.0	Scrap			0.00	0.0125	0.00	0.0200	
Year		44	1	0.0	0	100	1			1.000	NO	0.0	Poultry	0.65				0.0				0.00	0.0125	0.00	0.0100
10										1.000	NO	0.0	Meat	4				0.0				0.00	0.0200	0.00	0.0200
	N leach	Scrap	0.484	1.000						0.806	0.0	0.0	Meat	4			0.0	Scrap			0.00	0.0125	0.00	0.0200	

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	0.68	0.06	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10

Possible additional non IPCC N ₂ O-N emissions	Value	Kind of source	Total IPCC and non IPCC N ₂ O
N residues emissions, ratio of N ₂ O-N to N:	0.0000	Current crops	3.98
Increased soil N emissions, kg N ₂ O-N/ha:	0.00	Total anthropogenic	3.98
Natural background emissions, kg N ₂ O-N/ha:	1.00	Total including natural	4.72
			Note 51
			2.39 Note 51
			2.39 Note 51
			3.14 Note 51
			Note 50

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop N crop Food/ Fuel/ Poultry EGGS
 AND CONTINUING WITH LIQUID POULTRY MANURE TO PRODUCE benefit used & leach use # Uses #21-61 #71/ bev other #9 handling N a- IPCC 1996 N2O-N emission
 Name 1/0 Store Field 1/0 Or- Nnorm Crop Crop use & # Name Fed Food #72 #8 #9 # Name mounts Each Total Each Total

Year	Fertilizer/manure #	Store 1/0	Amounts Store 1/0	Field 1/0	Or- ganic 1/0	Nnorm propor tion, %	Crop #	Crop use & leach	Straw used 1/0	Cereal benefit 1/0	Crop use & leach	Use #	Fodder: Uses #21-61 Fed	Food #72	#8	Fuel/ other #9	Manure handling #	Final N a- mounts	N2O-N emission IPCC 1996 Each	N2O-N emission Total										
																					TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED									
																					IPCC 1996	IPCC 2006	11.7	11.7						
Total N	1	1	100.0	100.0	2.2 NON	100.00	WBB	0	0	1.000	NO	97.8	Poultry	43	40.0	9.6	0.0	0.0	0.0	41	30.4	11.7	1.76	3.75	1.59	2.28	Note 45			
Year 1-10	N	leach	1.022	1.000	0.591	0.0	1.000	0	0	0.591	0.0	57.8	Eggs	4	0.84	12.6	Liquid	3.0	0.05	0.125	3.0	14.6	0.15	0.15	0.55	Note 45				
TOTAL N AMOUNTS IN KG AND % LEACHED																						73.7	73.7							
TOTAL N AMOUNTS IN KG AND %																						100.0	100.0							

Year	N	leach	1	1	100.0 <th>100.0 <th>0 <th>100 <th>109 <th>0 <th>0 <th>97.8 <th>Poultry <th>43 <th>40.0 <th>9.6 <th>0.0 <th>0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th>	100.0 <th>0 <th>100 <th>109 <th>0 <th>0 <th>97.8 <th>Poultry <th>43 <th>40.0 <th>9.6 <th>0.0 <th>0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th>	0 <th>100 <th>109 <th>0 <th>0 <th>97.8 <th>Poultry <th>43 <th>40.0 <th>9.6 <th>0.0 <th>0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th>	100 <th>109 <th>0 <th>0 <th>97.8 <th>Poultry <th>43 <th>40.0 <th>9.6 <th>0.0 <th>0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th>	109 <th>0 <th>0 <th>97.8 <th>Poultry <th>43 <th>40.0 <th>9.6 <th>0.0 <th>0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th>	0 <th>0 <th>97.8 <th>Poultry <th>43 <th>40.0 <th>9.6 <th>0.0 <th>0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th></th></th></th></th></th></th></th></th>	0 <th>97.8 <th>Poultry <th>43 <th>40.0 <th>9.6 <th>0.0 <th>0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th></th></th></th></th></th></th></th>	97.8 <th>Poultry <th>43 <th>40.0 <th>9.6 <th>0.0 <th>0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th></th></th></th></th></th></th>	Poultry <th>43 <th>40.0 <th>9.6 <th>0.0 <th>0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th></th></th></th></th></th>	43 <th>40.0 <th>9.6 <th>0.0 <th>0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th></th></th></th></th>	40.0 <th>9.6 <th>0.0 <th>0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th></th></th></th>	9.6 <th>0.0 <th>0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th></th></th>	0.0 <th>0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th></th>	0.0 <th>0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th></th>	0.0 <th>41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th></th>	41 <th>30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th></th>	30.4 <th>1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th></th>	1.76 <th>3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th></th>	3.75 <th>1.59 <th>2.28 <th>Note 46 </th></th></th>	1.59 <th>2.28 <th>Note 46 </th></th>	2.28 <th>Note 46 </th>	Note 46
Year 1	N	leach	1.022	1.000	0.591	0.0	1.000	0	0	0.591	0.0	57.8	Eggs	4	0.84	12.6	Liquid	3.0	0.05	0.125	3.0	14.6	0.15	0.15	0.55	Note 45
Year 2	N	leach	1.022	1.000	0.591	0.0	1.000	0	0	0.591	0.0	57.8	Eggs	4	0.84	12.6	Liquid	3.0	0.05	0.125	3.0	14.6	0.15	0.15	0.55	Note 45
Year 3	N	leach	1.022	1.000	0.591	0.0	1.000	0	0	0.591	0.0	57.8	Eggs	4	0.84	12.6	Liquid	3.0	0.05	0.125	3.0	14.6	0.15	0.15	0.55	Note 45
Year 4	N	leach	1.022	1.000	0.591	0.0	1.000	0	0	0.591	0.0	57.8	Eggs	4	0.84	12.6	Liquid	3.0	0.05	0.125	3.0	14.6	0.15	0.15	0.55	Note 45
Year 5	N	leach	1.022	1.000	0.591	0.0	1.000	0	0	0.591	0.0	57.8	Eggs	4	0.84	12.6	Liquid	3.0	0.05	0.125	3.0	14.6	0.15	0.15	0.55	Note 45
Year 6	N	leach	1.022	1.000	0.591	0.0	1.000	0	0	0.591	0.0	57.8	Eggs	4	0.84	12.6	Liquid	3.0	0.05	0.125	3.0	14.6	0.15	0.15	0.55	Note 45
Year 7	N	leach	1.022	1.000	0.591	0.0	1.000	0	0	0.591	0.0	57.8	Eggs	4	0.84	12.6	Liquid	3.0	0.05	0.125	3.0	14.6	0.15	0.15	0.55	Note 45
Year 8	N	leach	1.022	1.000	0.591	0.0	1.000	0	0	0.591	0.0	57.8	Eggs	4	0.84	12.6	Liquid	3.0	0.05	0.125	3.0	14.6	0.15	0.15	0.55	Note 45
Year 9	N	leach	1.022	1.000	0.591	0.0	1.000	0	0	0.591	0.0	57.8	Eggs	4	0.84	12.6	Liquid	3.0	0.05	0.125	3.0	14.6	0.15	0.15	0.55	Note 45
Year 10	N	leach	1.022	1.000	0.591	0.0	1.000	0	0	0.591	0.0	57.8	Eggs	4	0.84	12.6	Liquid	3.0	0.05	0.125	3.0	14.6	0.15	0.15	0.55	Note 45

N2O-N in food/beverage/fuel/other 0.3210

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 0.68 0.14 0.03 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.86 1.26

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: 0.68

Total IPCC and non IPCC N2O 3.75

Kind of source Current crops 2.28

Total anthropogenic 3.75

Total including natural 4.60

Note 51

2.28 Note 51

2.28 Note 51

3.14 Note 51

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

Year	Fertilizer/manure #	Store Name	1/0	Field	1/0	Or-ganic	Nhorm propor	Crop #	Cereal benefit	Straw used	Crop leach	Use #	Food	Fed	Uses #21-61	N crop #71/	Food/ bev #72	Fuel/ other #9	Manure handling #	Final N a-	N2O-N emission	N2O-N emission	Each Total	Each Total	
Total N																									
Year	N	NH3																							
1-10	N	leach																							
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												0.0791 0.0445													
TOTAL												0.0952 0.0545													

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

Year	N																								
1	Voi/NH3	N	YES	100.0	0	100	109	0	0	97.8	43	40.0	9.6	0.0	0.0	0.0	0.0	0.0	42	30.4	11.0	11.0	1.89	3.81	1.46
	N	leach																							
Year	N																								
2	Voi/NH3	Poultry	YES	22.8	0	100	11	0	0	14.5	43	5.0	1.2	0.0	0.0	0.0	0.0	0.0	42	3.8	0.24	0.24	1.89	3.81	1.46
	N	leach	Sep																						
Year	N																								
3	Voi/NH3	Poultry	YES	0.4	0.6	NON	100.0	WWH	1.000	NO	1.2	Poultry	0.67	0.0	0.0	0.0	0.0	0.0	42	0.5	0.07	0.07	1.89	3.81	1.46
	N	leach	Sep																						
Year	N																								
4	Voi/NH3	Poultry	YES	0.1	0.3	0	100	11	0	0	1.8	43	0.6	0.2	0.0	0.0	0.0	0.0	42	0.5	0.07	0.07	1.89	3.81	1.46
	N	leach	Sep																						
Year	N																								
5	Voi/NH3	Poultry	YES	0.0	0.0	NON	100.0	SBA	1.000	NO	0.2	Eggs	0.65	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	1.89	3.81	1.46
	N	leach	Sep																						
Year	N																								
6	Voi/NH3	Poultry	YES	0.0	0.0	NON	100.0	WBB	1.000	NO	0.2	Eggs	0.84	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	1.89	3.81	1.46
	N	leach	Sep																						
Year	N																								
7	Voi/NH3	Poultry	YES	0.0	0.0	NON	100.0	WWH	1.000	NO	0.0	Eggs	0.67	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	1.89	3.81	1.46
	N	leach	Sep																						
Year	N																								
8	Voi/NH3	Poultry	YES	0.0	0.0	NON	100.0	WBB	1.000	NO	0.0	Eggs	0.84	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	1.89	3.81	1.46
	N	leach	Sep																						
Year	N																								
9	Voi/NH3	Poultry	YES	0.0	0.0	NON	100.0	WWH	1.000	NO	0.0	Eggs	0.67	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	1.89	3.81	1.46
	N	leach	Sep																						
Year	N																								
10	Voi/NH3	Poultry	YES	0.0	0.0	NON	100.0	SBA	1.000	NO	0.0	Eggs	0.65	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	1.89	3.81	1.46
	N	leach	Sep																						

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	0.68	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	1.18
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	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 Current crops
Increased soil N emissions, kg N2O-N/ha:		1.00	0.68	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.80	Total anthropogenic
Natural background emissions, kg N2O-N/ha:												0.80 Total including natural

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH MANURE FROM SCRAPING POULTRY TO PRODUCE CEREAL benefit 1/0 TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND 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 #	Fodder: Uses #21-61 Fed	N crop #71/ bevs #72	Fuel/ other #9	Manure handling #	Final N a-mounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 2006 Total
RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO FIRST YEAR TOTAL IPCC 1996 0.0864 IPCC 2006 0.0550 0.1175 0.0725 TOTAL 0.0550 0.0725																
Total N	1	1	100.0	100.0	0	100	109	0	0	43	9.6	0.0	44	11.2	2.55	2.22
Year 1-10 N leach	YES	1.022	1.000	2.2	NON	100.00	WBB	1.000	NO	0.84	0.0	0.0	Poultry	4.7	0.05	2.90
Year 1 N leach	44	1	30.4	30.4	0	100	11	0	0	4	1.3	0.0	44	4.1	0.41	0.61
Year 2 N leach	44	1	30.4	30.4	0	100	11	0	0	0.67	0.0	0.0	44	4.1	0.41	0.61
Year 3 N leach	44	1	4.1	4.1	0	100	11	0	0	4	0.2	0.0	44	0.6	0.06	0.08
Year 4 N leach	44	1	0.6	0.6	0	100	11	0	0	4	0.0	0.0	44	0.0	0.00	0.01
Year 5 N leach	44	1	0.1	0.1	0	100	1	0	0	4	0.0	0.0	44	0.0	0.00	0.00
Year 6 N leach	44	1	0.0	0.0	0	100.00	SBA	1.000	NO	0.65	0.0	0.0	44	0.0	0.00	0.00
Year 7 N leach	44	1	1.000	1.000	0	100	109	0	0	4	0.0	0.0	44	0.0	0.00	0.00
Year 8 N leach	44	1	0.0	0.0	0	100	11	0	0	4	0.0	0.0	44	0.0	0.00	0.00
Year 9 N leach	44	1	0.0	0.0	0	100	11	0	0	4	0.0	0.0	44	0.0	0.00	0.00
Year 10 N leach	44	1	0.0	0.0	0	100	11	0	0	4	0.0	0.0	44	0.0	0.00	0.00

N2O-N in food/beverage/fuel/other

Year	N	Vol/NH3	N	100.0	100.0	0	100	109	0	0	97.8	43	40.0	9.6	0.0	0.0	0.0	30.4	1.99	3.45	1.74	2.20	Note
Year 1																							
Year 2																							
Year 3																							
Year 4																							
Year 5																							
Year 6																							
Year 7																							
Year 8																							
Year 9																							
Year 10																							

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	0.68	0.09	0.01	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	0.00	Note 50
--------------------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	---------

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: 0.68
 Total IPCC and non IPCC N2O 4.70
 Total anthropogenic 4.70
 Total including natural 5.49

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH MANURE FROM GRAZING SHEEP TO PRODUCE Cereal benefit 1/0 TO PRODUCE Straw used 1/0 Crop use & leach

Year Fertilizer/manure # Store 1/0 Fertilizer/manure N Fertilizer Manure N crop Food/ Fuel/ other #71/ #72 #73 #74 #75 #76 #77 #78 #79 #80 #81 #82 #83 #84 #85 #86 #87 #88 #89 #90 #91 #92 #93 #94 #95 #96 #97 #98 #99 #100

Table with 10 columns: Year, Fertilizer/manure #, Store 1/0, Fertilizer/manure N, Fertilizer/manure Manure, N crop Food/ Fuel/ other, #71/ #72 #73 #74 #75 #76 #77 #78 #79 #80 #81 #82 #83 #84 #85 #86 #87 #88 #89 #90 #91 #92 #93 #94 #95 #96 #97 #98 #99 #100. Includes sub-tables for IPCC 1996 and IPCC 2006.

N2O-N in food/beverage/fuel/other

Main data table with 10 columns: Year, Fuel/manure #, Store 1/0, Fuel/manure N, Fuel/manure Manure, N crop Food/ Fuel/ other, #71/ #72 #73 #74 #75 #76 #77 #78 #79 #80 #81 #82 #83 #84 #85 #86 #87 #88 #89 #90 #91 #92 #93 #94 #95 #96 #97 #98 #99 #100. Includes sub-tables for IPCC 1996 and IPCC 2006.

Year Area with crop, ha Possible additional non IPCC N2O-N emissions N residues emissions, ratio of N2O-N to N: Increased soil N emissions, kg N2O-N/ha: Natural background emissions, kg N2O-N/ha: Total IPCC and non IPCC N2O Total/year 1 Total/year 10 Total/year 11 Total/year 12 Total/year 13 Total/year 14 Total/year 15 Total/year 16 Total/year 17 Total/year 18

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

Year	Fertilizer/manure #	Store Name	Store 1/0	Field 1/0	Or-ganic 1/0	Nnorm propor 1/0	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	N crop #71-72	Food #72	Fuel/other #9	Fuel/ bev #8	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total Each	
Total N																						
Year 1-10																						
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 0.0893 0.0488 TOTAL 0.1280 0.0692 TOTAL N AMOUNTS IN KG AND % LEACHED TOTAL N AMOUNTS IN KG AND %																						

N2O-N in food/beverage/fuel/other

Year	Vol/NH3	N	100.0	2.2 NON	100.00	100	0	100	0	97.8	61	40.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 1	Vol/NH3	N	100.0	2.2 NON	100.00	100	0	100	0	97.8	61	40.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 2	Vol/NH3	Goat	36.2	ORG	100.00	11	0	11	0	33.6	61	6.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 3	Vol/NH3	Goat	5.9	ORG	100.00	11	0	11	0	5.5	61	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 4	Vol/NH3	Goat	1.0	ORG	100.00	11	0	11	0	0.9	61	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 5	Vol/NH3	Goat	0.2	ORG	100.00	1	0	1	0	0.1	61	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 6	Vol/NH3	Goat	0.0	ORG	100.00	109	0	109	0	0.1	61	0.65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 7	Vol/NH3	Goat	0.0	ORG	100.00	11	0	11	0	0.0	61	0.84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 8	Vol/NH3	Goat	0.0	ORG	100.00	11	0	11	0	0.0	61	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 9	Vol/NH3	Goat	0.0	ORG	100.00	11	0	11	0	0.0	61	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year 10	Vol/NH3	Goat	0.0	ORG	100.00	1	0	1	0	0.0	61	0.65	0.0	0.0	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 0.68 0.11 0.02 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.81 1.19 Note 50

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: 0.68

Total IPCC and non IPCC N2O 5.12
 Total anthropogenic 5.12
 Total including natural 5.93
 Note 51 2.77 Note 51 2.77 Note 51 3.58 Note 51

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

Year	Fertilizer/manure #	Store 1/0	Amounts Field 1/0	Or-ganic 1/0	Nnorm propor 1/0	Crop # Name	Use # Name	Fodder: Uses #21-61 Fed	N crop #71/ Food #72/ other #9	Fuel/ bev #8	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total
Total N	1	1	100.0	100.0	0	100	109	0	0	0.0	0.0	3.3	1.92	1.62	2.39
Year N NH3	YES	0.0	0.0	2.2 NON	100.00 WBB	1000 NO	1000 NO	0.84	0.0	0.0	0.0	15.7	0.16	0.16	0.45
1-10 N leach	1.022	1.000	0.591	0.0	1.000	0.0	0.0	71	12.6 High	0.0	0.0	81.2	2.03	0.61	0.45
Year N	71	1	40.0	40.0	0	100	11	0	0	0.0	0.0	8.6	0.43	0.39	0.64
2	Green YES	0.0	0.0	10.0 NON	100.00 WWH	1000 NO	1000 NO	0.67	0.0	0.0	0.0	0.7	0.11	0.125	0.14
N leach	High	0.933	1.000	0.627	1.000	0.0	0.0	2	4.1 Liquid	0.0	0.0	0.0	0.47	0.0010	0.14
Year N	21	1	8.0	7.8	0	100	11	0	0	0.0	0.0	1.7	0.08	0.20	0.08
3	Cattle YES	0.2	0.2	2.0 NON	100.00 WWH	1000 NO	1000 NO	0.67	0.0	0.0	0.0	0.1	0.02	0.0125	0.02
N leach	Liquid	0.933	1.016	0.627	1.000	0.0	0.0	2	0.8 Liquid	0.0	0.0	0.0	0.09	0.0010	0.03
Year N	21	1	1.6	1.5	0	100	11	0	0	0.0	0.0	0.3	0.02	0.04	0.01
4	Cattle YES	0.0	0.4	0.4 NON	100.00 WWH	1000 NO	1000 NO	0.67	0.0	0.0	0.0	0.0	0.00	0.0125	0.01
N leach	Liquid	0.933	1.016	0.627	1.000	0.0	0.0	2	0.2 Liquid	0.0	0.0	0.0	0.02	0.0010	0.01
Year N	21	1	0.3	0.3	0	100	1	0	0	0.0	0.0	0.1	0.00	0.01	0.00
5	Cattle YES	0.0	0.1	0.1 NON	100.00 SBA	1000 NO	1000 NO	0.65	0.0	0.0	0.0	0.0	0.00	0.0125	0.00
N leach	Liquid	0.933	1.016	0.627	1.000	0.0	0.0	2	0.0 Liquid	0.0	0.0	0.0	0.00	0.0010	0.00
Year N	21	1	0.1	0.1	0	100	109	0	0	0.0	0.0	0.0	0.00	0.00	0.00
6	Cattle YES	0.0	0.0	0.0 NON	100.00 WBB	1000 NO	1000 NO	0.84	0.0	0.0	0.0	0.0	0.00	0.0125	0.00
N leach	Liquid	0.933	1.016	0.627	1.000	0.0	0.0	71	0.0 High	0.0	0.0	0.0	0.00	0.0000	0.00
Year N	71	1	0.0	0.0	0	100	11	0	0	0.0	0.0	0.0	0.00	0.00	0.00
7	Green YES	0.0	0.0	0.0 NON	100.00 WWH	1000 NO	1000 NO	0.67	0.0	0.0	0.0	0.0	0.00	0.0125	0.00
N leach	High	0.933	1.000	0.627	1.000	0.0	0.0	2	0.0 Liquid	0.0	0.0	0.0	0.00	0.0010	0.00
Year N	21	1	0.0	0.0	0	100	11	0	0	0.0	0.0	0.0	0.00	0.00	0.00
8	Cattle YES	0.0	0.0	0.0 NON	100.00 WWH	1000 NO	1000 NO	0.67	0.0	0.0	0.0	0.0	0.00	0.0125	0.00
N leach	Liquid	0.933	1.016	0.627	1.000	0.0	0.0	2	0.0 Liquid	0.0	0.0	0.0	0.00	0.0010	0.00
Year N	21	1	0.0	0.0	0	100	11	0	0	0.0	0.0	0.0	0.00	0.00	0.00
9	Cattle YES	0.0	0.0	0.0 NON	100.00 WWH	1000 NO	1000 NO	0.67	0.0	0.0	0.0	0.0	0.00	0.0125	0.00
N leach	Liquid	0.933	1.016	0.627	1.000	0.0	0.0	2	0.0 Liquid	0.0	0.0	0.0	0.00	0.0010	0.00
Year N	21	1	0.0	0.0	0	100	1	0	0	0.0	0.0	0.0	0.00	0.00	0.00
10	Cattle YES	0.0	0.0	0.0 NON	100.00 SBA	1000 NO	1000 NO	0.65	0.0	0.0	0.0	0.0	0.00	0.0125	0.00
N leach	Liquid	0.933	1.016	0.627	1.000	0.0	0.0	2	0.0 Liquid	0.0	0.0	0.0	0.00	0.0010	0.00

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	Total/year 1	
Year 1	Vol/NH3	N	YES	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 2	Vol/NH3	Green	YES	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 3	Vol/NH3	Cattle	YES	0.2	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 4	Vol/NH3	Cattle	YES	1.6	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 5	Vol/NH3	Cattle	YES	0.0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 6	Vol/NH3	Cattle	YES	0.0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 7	Vol/NH3	Green	YES	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 8	Vol/NH3	Cattle	YES	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 9	Vol/NH3	Cattle	YES	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Year 10	Vol/NH3	Cattle	YES	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	N	1.2540	1.14	2.85	1.38	2.85	1.14	2.85	1.38	2.85	1.14	2.85	1.38	2.85	1.14	2.85	1.38	2.85	1.38	2.85	1.14	2.85	1.38	2.85	

Area with crop, ha

Possible additional non IPCC N2O-N emissions

Value	Kind of source	Total IPCC and non IPCC N2O
0.0000	Current crops	4.11
0.00	Total anthropogenic	4.11
1.00	Total including natural	5.08

N residues emissions, ratio of N2O-N to N: 2.39 Note 51
 Increased soil N emissions, kg N2O-N/ha: 2.39 Note 51
 Natural background emissions, kg N2O-N/ha: 3.36 Note 51

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

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

Table with 2 columns: Year, N (VoI/NH3, N leach). Rows 1-10. Includes '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 10 columns: Year, N (VoI/NH3, N leach), and 8 years (Year 1-8). Includes 'TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED' and 'TOTAL N AMOUNTS IN KG AND % LEACHED'.

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 0.68 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.00

Possible additional non IPCC N2O-N emissions Value 0.0000 Kind of source Total IPCC and non IPCC N2O 2.85 Note 51
N residues emissions, ratio of N2O-N to N: 0.00 Current crops 1.59 Note 51
Increased soil N emissions, kg N2O-N/ha: 1.00 Total anthropogenic 2.85 1.59 Note 51
Natural background emissions, kg N2O-N/ha: 0.68 Total including natural 3.53 2.27 Note 51

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH NO MANURE TO PRODUCE CEREAL benefit 1/0 TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND NOTHING FOR WASTE DUMPED IN FIELD AND LOST TO LEACH WASTE DUMPED IN FIELD

Year	Fertilizer/manure #	Store 1/0	Store Amounts	Field 1/0	Or-ganic 1/0	Nnorm propor-tion, %	Crop #	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use #	Food Fed	Food #21-61	N crop #71/	Food #72	Fuel/other #9	Food #8	Manure handling #	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total	Total	
Total N																								
Year 1-10 N leach																								
RATIO OF N2O-N TO N IN FIRST CROP																								
ACCORDING TO IPCC 1996																							0.0962	0.0473
FIRST YEAR																							0.0962	0.0473
TOTAL																							0.0962	0.0473
TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED																							0.0	0.0
TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3																							2.2	2.2
TOTAL N AMOUNTS IN KG AND % LEACHED																							97.8	97.8
TOTAL N AMOUNTS IN KG AND %																							100.0	100.0

N2O-N in food/beverage/fuel/other

Year	Vol/NH3	N	YES	100.0	100.0	0	100	109	0	0	97.8	0	0.0	0.0	0.0	0.0	0.0	0.0	0	40.0	1.38	3.85	1.14
1	Vol/NH3	N	YES	100.0	100.0	0	100	109	0	0	97.8	0	0.0	0.0	0.0	0.0	0.0	0.0	0	40.0	1.38	3.85	1.14
	N leach								1.000	NO	57.8	Waste	0.84	0	0	0	0	0	0	0.0	0.02	0.0125	0.02
									0.591	0.0	57.8	in field	0	12.6	0	0	0	0	0	40.0	2.45	0.0000	0.73
Year 2	Vol/NH3	None	YES	0.0	0.0	0	100	11	0	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.00	0.00	0.00
	N leach								1.000	NO	0.0	Waste	0.67	0	0	0	0	0	0	0.0	0.00	0.0125	0.00
Year 3	Vol/NH3	None	YES	0.0	0.0	0	100	11	0	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.00	0.00	0.00
	N leach								1.000	NO	0.0	in field	0	0	0	0	0	0	0	0.0	0.00	0.0000	0.00
Year 4	Vol/NH3	None	YES	0.0	0.0	0	100	11	0	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.00	0.00	0.00
	N leach								1.000	NO	0.0	Waste	0.67	0	0	0	0	0	0	0.0	0.00	0.0125	0.00
Year 5	Vol/NH3	None	YES	0.0	0.0	0	100	1	0	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.00	0.00	0.00
	N leach								1.000	NO	0.0	in field	0	0	0	0	0	0	0	0.0	0.00	0.0125	0.00
Year 6	Vol/NH3	None	YES	0.0	0.0	0	100	109	0	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.00	0.00	0.00
	N leach								1.000	NO	0.0	Waste	0.65	0	0	0	0	0	0	0.0	0.00	0.0125	0.00
Year 7	Vol/NH3	None	YES	0.0	0.0	0	100	11	0	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.00	0.0125	0.00
	N leach								1.000	NO	0.0	in field	0	0	0	0	0	0	0	0.0	0.00	0.0000	0.00
Year 8	Vol/NH3	None	YES	0.0	0.0	0	100	11	0	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.00	0.00	0.00
	N leach								1.000	NO	0.0	Waste	0.67	0	0	0	0	0	0	0.0	0.00	0.0125	0.00
Year 9	Vol/NH3	None	YES	0.0	0.0	0	100	11	0	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.00	0.00	0.00
	N leach								1.000	NO	0.0	in field	0	0	0	0	0	0	0	0.0	0.00	0.0125	0.00
Year 10	Vol/NH3	None	YES	0.0	0.0	0	100	1	0	0	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.00	0.00	0.00
	N leach								1.000	NO	0.0	Waste	0.65	0	0	0	0	0	0	0.0	0.00	0.0125	0.00

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	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68

Possible additional non N residues emissions, kg N2O-N/ha:	Value	Kind of source	Total IPCC and non IPCC N2O
N residues emissions, ratio of N2O-N to N:	0.0000	Current crops	3.85
Increased soil N emissions, kg N2O-N/ha:	0.00	Total anthropogenic	3.85
Natural background emissions, kg N2O-N/ha:	1.00	Total including natural	4.53

SUMMARY CATTLE DAIRY

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	1.58
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	0.0724	0.0436	TOTAL N AMOUNTS IN KG AND % LEACHED	72.86 72.49	0.55
TOTAL	0.0928	0.0565	TOTAL N AMOUNTS IN KG AND %	100.52 100.00	
N2O-N/N in food/beverage/fuel/other					0.2667
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.87 1.27			
		0.87			Note 50 Note 51
					3.13 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY 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		13.66 13.58	1.56
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	0.0786	0.0435	TOTAL N AMOUNTS IN KG AND % LEACHED	72.60 72.22	0.54
TOTAL	0.1000	0.0563	TOTAL N AMOUNTS IN KG AND %	100.52 100.00	
N2O-N/N in food/beverage/fuel/other					0.2930
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.84 1.24			
		0.84			Note 50 Note 51
					3.09 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER CATTLE DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	1.49
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	0.0849	0.0435	TOTAL N AMOUNTS IN KG AND % LEACHED	71.49 68.28	0.54
TOTAL	0.1055	0.0559	TOTAL N AMOUNTS IN KG AND %	104.71 100.00	
N2O-N/N in food/beverage/fuel/other					0.3290
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.77 1.13			
		0.77			Note 50 Note 51
					3.01 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING CATTLE	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	0.0853	0.0539	TOTAL N AMOUNTS IN KG AND % LEACHED	82.32 82.32	0.62
TOTAL	0.1142	0.0702	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	
N2O-N/N in food/beverage/fuel/other					0.3463
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.78 1.14			
		0.78			Note 50 Note 51
					3.59 Note 51

SUMMARY CATTLE BEEF

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY 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 12.32	1.60
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	0.0724	0.0438	TOTAL N AMOUNTS IN KG AND % LEACHED	73.75 73.35	0.55
TOTAL	0.0941	0.0575	TOTAL N AMOUNTS IN KG AND %	100.55 100.00	

N2O-N/N in food/beverage/fuel/other 0.3039 0.1858 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.88 1.29
 0.88 3.18 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY 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		12.14 12.07	1.59
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	0.0789	0.0437	TOTAL N AMOUNTS IN KG AND % LEACHED	73.45 73.05	0.55
TOTAL	0.1017	0.0572	TOTAL N AMOUNTS IN KG AND %	100.55 100.00	

N2O-N/N in food/beverage/fuel/other 0.3351 0.1886 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.85 1.25
 0.77 3.14 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER CATTLE DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY 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		11.36 10.82	1.51
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	0.0855	0.0437	TOTAL N AMOUNTS IN KG AND % LEACHED	72.23 68.82	0.54
TOTAL	0.1073	0.0567	TOTAL N AMOUNTS IN KG AND %	104.96 100.00	

N2O-N/N in food/beverage/fuel/other 0.3780 0.1998 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.78 1.14
 0.78 3.04 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING CATTLE	TO PRODUCE TO PRODUCE	WINTER BARLEY 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		11.70 11.70	2.20
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	0.0860	0.0546	TOTAL N AMOUNTS IN KG AND % LEACHED	83.68 83.68	0.63
TOTAL	0.1166	0.0719	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other 0.3986 0.2457 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.78 1.15
 0.78 3.66 Note 51

SUMMARY PIG PORK

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID PIG MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	1.45
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	0.0725	0.0431	TOTAL N AMOUNTS IN KG AND % LEACHED	68.07 68.07	0.51
TOTAL	0.0868	0.0522	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other 0.1773 0.1066 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha: Total/year 1 0.82 1.21 0.82 Note 50 Note 51 2.91 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED PIG MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	1.39
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	0.0772	0.0432	TOTAL N AMOUNTS IN KG AND % LEACHED	66.16 65.83	0.50
TOTAL	0.0899	0.0511	TOTAL N AMOUNTS IN KG AND %	100.51 100.00	

N2O-N/N in food/beverage/fuel/other 0.1936 0.1101 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha: Total/year 1 0.77 1.14 0.77 Note 50 Note 51 2.82 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER PIG DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	1.34
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	0.0814	0.0434	TOTAL N AMOUNTS IN KG AND % LEACHED	64.07 62.56	0.48
TOTAL	0.0925	0.0506	TOTAL N AMOUNTS IN KG AND %	102.40 100.00	

N2O-N/N in food/beverage/fuel/other 0.2042 0.1118 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha: Total/year 1 0.75 1.10 0.75 Note 50 Note 51 2.77 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM ROOTING PIGS	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	1.98
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	0.0828	0.0514	TOTAL N AMOUNTS IN KG AND % LEACHED	76.18 76.18	0.57
TOTAL	0.1059	0.0649	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other 0.2150 0.1317 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha: Total/year 1 0.80 1.18 0.80 Note 50 Note 51 3.40 Note 51

SUMMARY POULTRY MEAT

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	0.0721	0.0425	TOTAL N AMOUNTS IN KG AND % LEACHED	67.34 67.34	0.51
TOTAL	0.0847	0.0502	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45

N2O-N/N in food/beverage/fuel/other 0.1474 0.0874 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.79 1.15
 0.79 2.79 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	1.33
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	0.0763	0.0428	TOTAL N AMOUNTS IN KG AND % LEACHED	64.46 64.46	0.48
TOTAL	0.0859	0.0488	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45

N2O-N/N in food/beverage/fuel/other 0.1548 0.0879 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.75 1.11
 0.75 2.71 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER POULTRY DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	1.29
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	0.0790	0.0432	TOTAL N AMOUNTS IN KG AND % LEACHED	63.66 63.56	0.48
TOTAL	0.0870	0.0479	TOTAL N AMOUNTS IN KG AND %	100.16 100.00	Note 45 Note 45

N2O-N/N in food/beverage/fuel/other 0.1630 0.0898 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.72 1.06
 0.72 2.64 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM SCRAPING POULTRY	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	1.80
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	0.0810	0.0496	TOTAL N AMOUNTS IN KG AND % LEACHED	73.92 73.92	0.55
TOTAL	0.0995	0.0598	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45

N2O-N/N in food/beverage/fuel/other 0.1778 0.1069 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.75 1.10
 0.75 3.14 Note 51

SUMMARY POULTRY EGGS

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	0.0726	0.0440	TOTAL N AMOUNTS IN KG AND % LEACHED	73.69 73.69	0.55
TOTAL	0.0937	0.0571	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other					0.1957 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.86 1.26			Note 50
		0.86		4.60	3.14 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	1.46
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	0.0791	0.0445	TOTAL N AMOUNTS IN KG AND % LEACHED	68.65 68.65	0.51
TOTAL	0.0952	0.0545	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other					0.1975 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.80 1.18			Note 50
		0.80		4.61	2.98 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER POULTRY DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	1.38
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	0.0833	0.0451	TOTAL N AMOUNTS IN KG AND % LEACHED	67.12 66.95	0.50
TOTAL	0.0963	0.0527	TOTAL N AMOUNTS IN KG AND %	100.25 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other					0.2037 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.74 1.09			Note 50
		0.74		4.59	2.85 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM SCRAPING POULTRY	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	2.22
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	0.0864	0.0550	TOTAL N AMOUNTS IN KG AND % LEACHED	84.17 84.17	0.63
TOTAL	0.1175	0.0725	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45 Note 45
N2O-N/N in food/beverage/fuel/other					0.2597 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.79 1.16			Note 50
		0.79		5.49	3.69 Note 51

SUMMARY SHEEP AND GOATS

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SHEEP DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	0.0871	0.0447			
TOTAL	0.1264	0.0645			

N2O-N/N in food/beverage/fuel/other		0.7092			0.3617 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.84			Note 50
		0.84			3.42 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING SHEEP	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	0.0883	0.0398			
TOTAL	0.1246	0.0572			

N2O-N/N in food/beverage/fuel/other		0.7420			0.3408 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.80			Note 50
		0.80			3.09 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER GOAT DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	0.0879	0.0450			
TOTAL	0.1162	0.0610			

N2O-N/N in food/beverage/fuel/other		1.0449			0.5488 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.81			Note 50
		0.81			3.25 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING GOATS	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	0.0893	0.0488			
TOTAL	0.1280	0.0692			

N2O-N/N in food/beverage/fuel/other		1.1166			0.6031 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.81			Note 50
		0.81			3.58 Note 51

SUMMARY N CROP

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER GREEN MANURE HIGH N	TO PRODUCE TO PRODUCE	WINTER BARLEY 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	1.62
Year N NH3	IPCC 1996	IPCC 2006	15.70	15.68	0.16
1-10 N leach	0.0712	0.0398	81.18	81.05	0.61
TOTAL	0.1027	0.0597	100.16	100.00	

N2O-N/N in food/beverage/fuel/other 1.2540 0.7290 Note 46

Area with crop, ha Total/year 1 0.97 1.43 Note 50

Natural background emissions, kg N2O-N/ha: 0.97 3.36 Note 51

N amount in reference crop year 2 after use of N crop as green manure, kg 11.20

N amount in reference crop year 1 after synthetic N fertilizer, kg 40.00

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 BARLEY 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	1.56
Year N NH3	IPCC 1996	IPCC 2006	14.20	14.19	0.14
1-10 N leach	0.0712	0.0398	84.02	83.94	0.63
TOTAL	0.1028	0.0584	100.09	100.00	

N2O-N/N in food/beverage/fuel/other 2.1989 1.2485 Note 46

Area with crop, ha Total/year 1 0.85 1.24 Note 50

Natural background emissions, kg N2O-N/ha: 0.85 3.18 Note 51

N amount in reference crop year 2 after use of N crop as green manure, kg 6.40

N amount in reference crop year 1 after synthetic N fertilizer, kg 40.00

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 TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND NOTHING FOR FOOD FOOD Note 43 Note 43

Total N RATIO OF N2O-N TO N IN FIRST CROP IPCC 1996 0.0712 0.0398 0.0398 40.00 40.00 1.38 2.85 1.14 1.59 Note 45
 Year N NH3 ACCORDING TO IPCC 2006 2.20 2.20 0.02 2.20 2.20 0.02 2.20 0.02 0.02 Note 45
 1-10 N leach FIRST YEAR 57.80 57.80 1.45 57.80 57.80 0.43 57.80 0.43 Note 45
 TOTAL 100.00 100.00 100.00 100.00 100.00 Note 45

N2O-N/N in food/beverage/fuel/other 0.0712 0.0398 Note 46
 Area with crop, ha Total/year 1 1.00
 Natural background emissions, kg N2O-N/ha: 0.68 1.00 Note 50
 0.68 2.27 Note 51

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

Total N RATIO OF N2O-N TO N IN FIRST CROP IPCC 1996 0.0712 0.0398 0.0398 40.00 40.00 1.38 2.85 1.14 1.59 Note 45
 Year N NH3 ACCORDING TO IPCC 2006 2.20 2.20 0.02 2.20 2.20 0.02 2.20 0.02 Note 45
 1-10 N leach FIRST YEAR 57.80 57.80 1.45 57.80 57.80 0.43 57.80 0.43 Note 45
 TOTAL 100.00 100.00 100.00 100.00 100.00 Note 45

N2O-N/N in food/beverage/fuel/other 0.0712 0.0398 Note 46
 Area with crop, ha Total/year 1 1.00
 Natural background emissions, kg N2O-N/ha: 0.68 1.00 Note 50
 0.68 2.27 Note 51

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH NO MANURE TO PRODUCE TO PRODUCE WINTER BARLEY 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 IPCC 1996 0.0712 0.0398 0.0398 40.00 40.00 1.38 2.85 1.14 1.59 Note 45
 Year N NH3 ACCORDING TO IPCC 2006 2.20 2.20 0.02 2.20 2.20 0.02 2.20 0.02 Note 45
 1-10 N leach FIRST YEAR 57.80 57.80 1.45 57.80 57.80 0.43 57.80 0.43 Note 45
 TOTAL 100.00 100.00 100.00 100.00 100.00 Note 45

N2O-N/N in food/beverage/fuel/other No use No use Note 46
 Area with crop, ha Total/year 1 1.00
 Natural background emissions, kg N2O-N/ha: 0.68 1.00 Note 50
 0.68 2.27 Note 51

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH NO MANURE TO PRODUCE TO PRODUCE WINTER BARLEY 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 IPCC 1996 0.0962 0.0473 0.0473 0.00 0.00 1.38 3.85 1.14 1.89 Note 45
 Year N NH3 ACCORDING TO IPCC 2006 2.20 2.20 0.02 2.20 2.20 0.02 2.20 0.02 Note 45
 1-10 N leach FIRST YEAR 97.80 97.80 2.45 97.80 97.80 0.73 97.80 0.73 Note 45
 TOTAL 100.00 100.00 100.00 100.00 100.00 Note 45

N2O-N/N in food/beverage/fuel/other No use No use Note 46
 Area with crop, ha Total/year 1 1.00
 Natural background emissions, kg N2O-N/ha: 0.68 1.00 Note 50
 0.68 2.57 Note 51

SUMMARY CATTLE	RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO	IPCC 1996	IPCC 2006	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
	FIRST YEAR	MIN	MAX	MIN	MAX
	TOTAL	0.0724	0.0860	0.0435	0.0546
		0.0928	0.1166	0.0559	0.0719

N2O-N/N in food/beverage/fuel/other					
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:	MIN	MAX	MIN	MAX	
	0.77	0.88	0.77	1.15	

SUMMARY PIGS	RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO	IPCC 1996	IPCC 2006	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
	FIRST YEAR	MIN	MAX	MIN	MAX
	TOTAL	0.0725	0.0828	0.0431	0.0514
		0.0868	0.1059	0.0506	0.0649

N2O-N/N in food/beverage/fuel/other					
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:	MIN	MAX	MIN	MAX	
	0.75	0.82	0.75	0.82	

SUMMARY POULTRY	RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO	IPCC 1996	IPCC 2006	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
	FIRST YEAR	MIN	MAX	MIN	MAX
	TOTAL	0.0721	0.0864	0.0425	0.0550
		0.0847	0.1175	0.0479	0.0725

N2O-N/N in food/beverage/fuel/other					
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:	MIN	MAX	MIN	MAX	
	0.72	0.86	0.72	0.86	

SUMMARY SHEEP AND GOATS	RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO	IPCC 1996	IPCC 2006	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
	FIRST YEAR	MIN	MAX	MIN	MAX
	TOTAL	0.0871	0.0893	0.0398	0.0488
		0.1162	0.1280	0.0572	0.0692

N2O-N/N in food/beverage/fuel/other					
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:	MIN	MAX	MIN	MAX	
	0.80	0.84	0.80	0.84	

SUMMARY FODDER	RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO	IPCC 1996	IPCC 2006	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
	FIRST YEAR	MIN	MAX	MIN	MAX
	TOTAL	0.0721	0.0893	0.0398	0.0550
		0.0847	0.1280	0.0479	0.0725

N2O-N/N in food/beverage/fuel/other					
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:	MIN	MAX	MIN	MAX	
	0.72	0.88	0.72	1.15	