

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

Crop, PPO/biodiesel/bioethanol	WRB	WWHB	WWBB	WBB	RYB	TRB	SBB	SWB	OAB	MCB
Crop #	229	119	139	109	149	169	19	29	39	59
<NUE/e>	0.64	0.64	0.54	0.60	0.59	0.53	0.60	0.58	0.73	0.62
N digestibility, crop part with N	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.83
<NUE/e> addition before cereal	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<NUE/e> addition from straw	0.15	0.11	0.09	0.12	0.17	0.13	0.12	0.07	0.13	0.00
Recalculated N norm, kg N/ha	144	157	198	147	117	141	118	118	93	140

<NUE/e> amounts from crop res	0.03	0.11	0.09	0.08	0.15	0.12	0.09	0.12	0.11	0.21	0.04	0.04	0.13	1.28	0.15	0.15	-0.30
<NUE/e> amounts from N fixation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	11.96	0.00	0.00	-4.05

Manure/ferti- lizer kind, #	None	0	1	2	2	2	2	3	3	3	3	3	4	4	4	4	5	5	6	6	71	72	72	None	None
Manure handling	None	None	Liquid	Deep	Deep	Deep	Deep	Rooting	Liquid	Separated	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	Deep	high N	low N	low N	None	None
Manure+straw, relative	1.000	1.016	1.016	1.159	1.000	1.000	1.024	1.127	1.000	1.000	1.013	1.000	1.162	1.000	1.162	1.000	1.162	1.000	1.162	1.000	1.000	1.000	1.000	1.000	0
Vol/NH3 House	0.000	0.080	0.050	0.060	0.000	0.140	0.180	0.250	0.000	0.100	0.250	0.400	0.150	0.000	0.150	0.000	0.150	0.450	0.450	0.450	0.700	0.400	0.400	0.000	0
Vol/NH3 Store	0.000	0.022	0.085	0.300	0.000	0.027	0.214	0.400	0.000	0.020	0.150	0.175	0.000	0.150	0.000	0.150	0.000	0.150	0.150	0.150	0.000	0.000	0.000	0.000	0
% use of field store				20			70				85														
Vol/NH3 Field	0.000	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.070	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0
N efficiency	0.000	0.700	0.650	0.450	0.450	0.750	0.650	0.650	0.650	0.650	0.650	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.700	0.400	0.400	0.400	0
N-Vol/NH3 efficiency	1.022	0.933	0.867	0.600	0.484	1.000	0.867	0.867	0.699	0.867	0.867	0.600	0.484	0.600	0.484	0.600	0.484	0.600	0.484	0.600	0.933	0.533	0.533	0.533	0

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

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

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

Year Fertilizer/manure # Store Amounts Field Name 1/0 Or-ganic 1/0 Nnorm propor tion, % Crop # 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

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED										39.1
Year N NH3	IPCC 1996										IPCC 2006										19.7
1-10 N leach	0.0346										0.0214										41.2
TOTAL	0.0532										0.0334										100.0

N2O-N in food/beverage/fuel/other

Year	N	Vol/NH3	N	NO	100.0	100.0	0	100	109	0	1	97.8	21	59.6	17.6	0.0	0.0	11.3	22	42.0	2.53	3.77	1.86	2.37	Note	
1	Year	N	Vol/NH3	N	NO	100.0	100.0	0	100	109	0	1	97.8	21	59.6	17.6	0.0	0.0	11.3	22	42.0	2.53	3.77	1.86	2.37	Note 45
	N leach	1.022	1.000	0.0	2.2	NON	100.00	WBB	1.000	YES	1.000	YES	0.84	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.125	0.04	0.1000	Note 48
	Year	N	22	0	40.5	40.5	0	100	11	0.391	11.3	26.9	Dairy	2	7.5	0.00	0.00	7.5	0.00	0.00	0.67	0.105	0.20	0.0050	Note 49	
	N leach	0.867	1.016	0.0	10.1	NON	100.00	WWH	1.000	YES	1.000	YES	0.67	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.125	0.11	0.0100	Note 48
	Year	N	22	0	12.5	12.5	0	100	11	0.443	3.4	10.1	Dairy	2	3.3	0.00	0.00	3.3	0.00	0.00	0.00	0.25	0.105	0.08	0.0050	Note 49
	N leach	0.867	1.016	0.0	3.1	NON	100.00	WWH	1.000	YES	1.000	YES	0.67	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.28	0.13	0.18	Note 47
	Year	N	22	0	3.9	3.9	0	100	11	0.443	1.0	3.1	Dairy	2	1.0	0.00	0.00	1.0	0.00	0.00	0.03	0.125	0.03	0.0100	Note 48	
	N leach	0.867	1.016	0.0	1.0	NON	100.00	WWH	1.000	YES	1.000	YES	0.67	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.105	0.02	0.0050	Note 49
	Year	N	22	0	1.2	1.2	0	100	1	0.483	0.3	1.0	Dairy	2	0.3	0.00	0.00	0.3	0.00	0.00	0.01	0.0125	0.01	0.0100	Note 48	
	N leach	0.867	1.016	0.0	0.3	NON	100.00	SBA	1.000	YES	1.000	YES	0.483	0.483	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.105	0.01	0.0050	Note 49
	Year	N	22	0	0.0	0.0	0	100	109	0.483	0.1	0.3	Dairy	2	0.65	0.00	0.00	0.1	0.00	0.00	0.00	0.02	0.03	0.01	0.02	Note 47
	N leach	0.867	1.016	0.0	0.1	NON	100.00	WBB	1.000	YES	1.000	YES	0.483	0.483	0.00	0.00	0.00	0.1	0.00	0.00	0.00	0.01	0.105	0.00	0.0100	Note 48
	Year	N	22	0	0.0	0.0	0	100	11	0.483	0.0	0.1	Dairy	2	0.84	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.0125	0.00	0.0050	Note 49
	N leach	0.867	1.016	0.0	0.1	NON	100.00	WBB	1.000	YES	1.000	YES	0.483	0.483	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.105	0.00	0.0050	Note 48
	Year	N	22	0	0.0	0.0	0	100	11	0.483	0.0	0.1	Dairy	2	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Note 47
	N leach	0.867	1.016	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	YES	0.483	0.483	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.125	0.00	0.0050	Note 49
	Year	N	22	0	0.0	0.0	0	100	11	0.483	0.0	0.0	Dairy	2	0.67	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.125	0.00	0.0100	Note 48
	N leach	0.867	1.016	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	YES	0.483	0.483	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.105	0.00	0.0050	Note 49
	Year	N	22	0	0.0	0.0	0	100	11	0.483	0.0	0.0	Dairy	2	0.67	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Note 47
	N leach	0.867	1.016	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	YES	0.483	0.483	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.125	0.00	0.0100	Note 48
	Year	N	22	0	0.0	0.0	0	100	1	0.483	0.0	0.0	Dairy	2	0.65	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Note 48
	N leach	0.867	1.016	0.0	0.0	NON	100.00	SBA	1.000	YES	1.000	YES	0.483	0.483	0.00	0.00	0.00	0.0	0.00	0.00	0.00	0.00	0.125	0.00	0.0100	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 0.22 0.07 0.02 0.01 0.00 0.00 0.00 0.00 0.00 1.47

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 3.77
 Total anthropogenic 3.77
 Total including natural 4.77

Kind of source
 Current crops
 Total anthropogenic
 Total including natural

Note 51
 Note 51
 Note 51
 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CATTLE DAIRY Note 43
 AND CONTINUING WITH CATTLE DEEP LITTER TO PRODUCE CATTLE DAIRY 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 Use # Name Fed Fodder: Uses #21-61 Food #72 N crop #71/ bev #8 Fuel/ other #9 Manure handling # Name Final N a-IPCC 1996 N2O-N emission IPCC 2006 N2O-N emission 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										35.1
Year N NH3	IPCC 1996					IPCC 2006					TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3										19.0
1-10 N leach	0.0399					0.0214					TOTAL N AMOUNTS IN KG AND % LEACHED										45.9
TOTAL	0.0625					0.0342					TOTAL N AMOUNTS IN KG AND %										100.0

N2O-N in food/beverage/fuel/other 0.1168 0.0639 Note 46

Year N	1	2	3	4	5	6	7	8	9	10	Total
Vol/NH3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N leach	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	45.8	45.8	45.8	45.8	45.8	45.8	45.8	45.8	45.8	45.8	45.8
N leach	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
N leach	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
N leach	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
N leach	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
N leach	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
N leach	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
N leach	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0
Year N	23	23	23	23	23	23	23	23	23	23	23
Vol/NH3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
N leach	0.0	0.0	0.0								

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 N2O-N emission
 # Store Amounts #71/ be v 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 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									
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	0.0402	0.0642	0.0301	0.0451		1.000	YES	1.000	YES	0.391	11.3	0.677	26.9	Cattle	0.84	0.000	6.0	6.0		
TOTAL	0.0642	0.0451	0.0301	0.0451		1.000	YES	1.000	YES	0.391	11.3	0.677	26.9	Cattle	0.84	0.000	6.0	6.0		

N2O-N in food/beverage/fuel/other

Year N	1	0	100.0	100.0	0	100	109	0	1	97.8	21	59.6	17.6	0.0	0.0	11.3	24	42.0	38.1	3.09	4.55	2.72	3.20
1	Vol/NH3	N	NO	0.0	2.2	NON	100.00	WBB	1.000	YES	1.000	0.84	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.06	0.06	0.06	0.06
	N leach			1.000	1.000	ORG	1.00	1.000	0.391	11.3	26.9	2	0.000	0.000	0.000	7.5	Graz	0.000	6.0	0.67	0.0200	0.20	0.0200
Year N	2	0	42.0	42.0	0	100	11	0	1	39.1	21	12.1	2.9	0.0	0.0	4.3	24	9.3	9.3	1.40	1.32	0.63	0.83
2	Vol/NH3	Cattle	NO	0.0	2.9	NON	100.00	WWH	1.000	YES	1.000	0.67	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.40	1.32	0.63	0.83
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.689	4.3	22.6	Dairy	2	0.000	0.000	0.000	4.2	Graz	0.000	56.0	0.57	0.0200	0.17	0.0200
Year N	3	0	9.3	9.3	0	100	11	0	1	8.6	21	2.7	0.6	0.0	0.0	1.0	24	2.1	2.1	0.14	0.29	0.14	0.18
3	Vol/NH3	Cattle	NO	0.0	0.7	NON	100.00	WWH	1.000	YES	1.000	0.67	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.14	0.29	0.14	0.18
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.689	1.0	5.0	Dairy	2	0.000	0.000	0.000	0.9	Graz	0.000	56.0	0.12	0.0200	0.04	0.0200
Year N	4	0	2.1	2.1	0	100	11	0	1	1.9	21	0.6	0.1	0.0	0.0	0.2	24	0.5	0.5	0.04	0.06	0.03	0.04
4	Vol/NH3	Cattle	NO	0.0	0.1	NON	100.00	WWH	1.000	YES	1.000	0.67	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.04	0.06	0.03	0.04
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.689	0.2	1.1	Dairy	2	0.000	0.000	0.000	0.2	Graz	0.000	56.0	0.03	0.0200	0.01	0.0200
Year N	5	0	0.5	0.5	0	100	1	0	1	0.4	21	0.1	0.0	0.0	0.0	0.0	24	0.1	0.1	0.01	0.01	0.01	0.01
5	Vol/NH3	Cattle	NO	0.0	0.0	NON	100.00	SBA	1.000	YES	1.000	0.65	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.01	0.01	0.01	0.01
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.711	0.0	0.3	Dairy	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.01	0.01	0.01	0.01
Year N	6	0	0.1	0.1	0	100	109	0	1	0.1	21	0.0	0.0	0.0	0.0	0.0	24	0.0	0.0	0.00	0.00	0.00	0.00
6	Vol/NH3	Cattle	NO	0.0	0.0	NON	100.00	WBB	1.000	YES	1.000	0.84	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.712	0.0	0.1	Dairy	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00
Year N	7	0	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	24	0.0	0.0	0.00	0.00	0.00	0.00
7	Vol/NH3	Cattle	NO	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.689	0.0	0.0	Dairy	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00
Year N	8	0	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	24	0.0	0.0	0.00	0.00	0.00	0.00
8	Vol/NH3	Cattle	NO	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.689	0.0	0.0	Dairy	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00
Year N	9	0	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	24	0.0	0.0	0.00	0.00	0.00	0.00
9	Vol/NH3	Cattle	NO	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.689	0.0	0.0	Dairy	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00
Year N	10	0	0.0	0.0	0	100	1	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	24	0.0	0.0	0.00	0.00	0.00	0.00
10	Vol/NH3	Cattle	NO	0.0	0.0	NON	100.00	SBA	1.000	YES	1.000	0.65	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00
	N leach	Graz	0.484	1.000	ORG	1.00	1.000	0.711	0.0	0.0	Dairy	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	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 0.68 0.13 0.03 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.84 1.24 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 4.55
 Total anthropogenic 4.55
 Total including natural 5.39

Kind of source
 Current crops 0.00
 Total anthropogenic 0.00
 Total including natural 0.84

Year 1 0.68
 Year 2 0.13
 Year 3 0.03
 Year 4 0.01
 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 0.84

Year 1 0.00
 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 0.00

Year 1 0.00
 Year 2 0.00
 Year 3 0.03
 Year 4 0.01
 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 0.04

Year 1 0.00
 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 0.00

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop N crop Food/ Fuel/ Manure Final N2O-N emission
 AND CONTINUING WITH LIQUID PIG MANURE TO PRODUCE benefit used & leach use # #71/ bev #9 other # Name amounts Each Total IPCC 2006
 Name 1/0 Store Field 1/0 Or- ganic 1/0 Nnorm Crop # Name Fed Food #72 #8 #9 # Name amounts Each Total IPCC 1996

Year	Fertilizer/manure #	Store 1/0	Amounts 1/0	Field 1/0	Or- ganic 1/0	Nnorm 1/0	Crop #	Use Name	Fodder: Uses #21-61	N crop #71/	Food #72	beverage #8	Fuel/ other #9	Manure handling #	Final N a-	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
Total N	1	0	100.0	100.0	0	100	109	97.8	32	59.6	24.9	0.0	11.3	31	47.3	1.76	2.80
Year N NH3	NO	0.0	0.0	2.2	NON	100.00	WBB	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0	0.07	0.125
1-10 N leach	1.022	1.000	1.000	0.391	11.3	26.9	Pig	0.84	3	3	7.5	Liquid	4.9	0.0	0.67	0.0010	0.20
Year N NH3	Pig	NO	0.0	29.8	0	100	11	22.4	32	14.4	6.0	0.0	2.5	31	8.4	0.32	0.54
N leach	Liquid	1.000	1.000	7.5	NON	100.00	WWH	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0	0.09	0.125
Year N NH3	Pig	NO	7.2	7.2	0	100	11	5.4	32	3.5	1.5	0.0	0.6	31	2.0	0.08	0.13
N leach	Liquid	1.000	1.000	1.8	NON	100.00	WWH	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0	0.02	0.125
Year N NH3	Pig	NO	0.0	1.7	0	100	11	1.3	32	0.67	0.3	0.0	0.1	31	0.5	0.02	0.03
N leach	Liquid	1.000	1.000	0.4	NON	100.00	WWH	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0	0.01	0.125
Year N NH3	Pig	NO	0.0	0.4	0	100	1	0.3	32	0.2	0.1	0.0	0.0	31	0.1	0.01	0.010
N leach	Liquid	1.000	1.000	0.1	NON	100.00	SBA	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0	0.00	0.0125
Year N NH3	Pig	NO	0.0	0.1	0	100	109	0.1	Pig	0.65	3	0.0	0.0	0.0	0.0	0.00	0.0125
N leach	Liquid	1.000	1.000	0.0	NON	100.00	WBB	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0	0.00	0.0125
Year N NH3	Pig	NO	0.0	0.0	0.0	100	11	0.0	32	0.0	0.0	0.0	0.0	31	0.0	0.00	0.000
N leach	Liquid	1.000	1.000	0.0	NON	100.00	WBB	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0	0.00	0.0125
Year N NH3	Pig	NO	0.0	0.0	0.0	100	11	0.0	32	0.0	0.0	0.0	0.0	31	0.0	0.00	0.000
N leach	Liquid	1.000	1.000	0.0	NON	100.00	WWH	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0	0.00	0.0125
Year N NH3	Pig	NO	0.0	0.0	0.0	100	11	0.0	32	0.0	0.0	0.0	0.0	31	0.0	0.00	0.000
N leach	Liquid	1.000	1.000	0.0	NON	100.00	WWH	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0	0.00	0.0125
Year N NH3	Pig	NO	0.0	0.0	0.0	100	11	0.0	32	0.0	0.0	0.0	0.0	31	0.0	0.00	0.000
N leach	Liquid	1.000	1.000	0.0	NON	100.00	SBA	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0	0.00	0.0125
Year N NH3	Pig	NO	0.0	0.0	0.0	100	1000	0.0	32	0.65	3	0.0	0.0	31	0.0	0.00	0.0125
N leach	Liquid	1.000	1.000	0.0	NON	100.00	WBB	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0	0.00	0.0125

N2O-N in food/beverage/fuel/other

Year	N	Vol/NH3	N	100.0	100.0	0	100	109	97.8	32	59.6	24.9	0.0	11.3	31	34.7	1.35	2.09
Year 1	Vol/NH3	N	NO	0.0	0.0	2.2	NON	100.00	WBB	1.000	YES	0.0	0.0	0.0	0.0	0.0	0.07	0.125
Year 2	Vol/NH3	Pig	NO	0.0	29.8	0	100	11	22.4	32	14.4	6.0	0.0	2.5	31	8.4	0.32	0.54
Year 3	Vol/NH3	Pig	NO	7.2	7.2	0	100	11	5.4	32	3.5	1.5	0.0	0.6	31	2.0	0.08	0.13
Year 4	Vol/NH3	Pig	NO	0.0	1.7	0	100	11	1.3	32	0.67	0.3	0.0	0.1	31	0.5	0.02	0.03
Year 5	Vol/NH3	Pig	NO	0.0	0.4	0	100	1	0.3	32	0.2	0.1	0.0	0.0	31	0.1	0.01	0.010
Year 6	Vol/NH3	Pig	NO	0.0	0.1	0	100	109	0.1	Pig	0.65	3	0.0	0.0	0.0	0.00	0.0125	
Year 7	Vol/NH3	Pig	NO	0.0	0.0	0.0	100	11	0.0	32	0.0	0.0	0.0	0.0	31	0.0	0.00	0.000
Year 8	Vol/NH3	Pig	NO	0.0	0.0	0.0	100	11	0.0	32	0.0	0.0	0.0	0.0	31	0.0	0.00	0.000
Year 9	Vol/NH3	Pig	NO	0.0	0.0	0.0	100	11	0.0	32	0.0	0.0	0.0	0.0	31	0.0	0.00	0.000
Year 10	Vol/NH3	Pig	NO	0.0	0.0	0.0	100	1000	0.0	32	0.65	3	0.0	0.0	0.0	0.00	0.0125	
N leach	Liquid	1.000	1.000	0.0	NON	100.00	WBB	1.000	YES	1.000	YES	0.0	0.0	0.0	0.0	0.00	0.0125	

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 0.19 0.04 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.93 1.36

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 2.80
 Total anthropogenic 2.80
 Total including natural 3.73
 Note 51 2.04 Note 51 2.04 Note 51 2.97 Note 51

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

Year Fertilizer/manure # Store Amounts Field Name 1/0 Or-ganic 1/0 Nnorm propor tion, % Crop # Name Use # Name Fed Food #72 bev #71/ other #9 Fuel/ Manure Final N2O-N emission IPCC 2006 N2O-N emission IPCC 1996 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	1	97.8	32	59.6	24.9	0.0	0.0	11.3	32	34.7	2.07	3.17	1.56	2.02	Note 45
1-10 N leach	1.022	1.000	1.000	1.000	0.391	11.3	26.9 Pig	0.84	3	7.5 Sep	0.0	0.0	0.0	6.2	0.08	0.125	0.08	0.100	Note 45	
	29.1	0	100	11	1.000	YES	21.8	32	12.2	5.1	0.0	0.0	2.4	7.1	0.36	0.63	0.28	0.42	Note 44	
	7.3	NON	100.00	WWH	1.000	YES	7.3 Pig	0.67	3	2.4 Sep	0.0	0.0	0.0	1.3	0.09	0.125	0.09	0.100	Note 44	
	5.9	0	100	11	0.443	2.4	7.3 Pork	3	2.5	1.0	0.0	0.0	0.5	1.4	0.07	0.13	0.06	0.09	Note 44	
	1.5	NON	100.00	WWH	1.000	YES	1.5 Pig	0.67	3	0.5 Sep	0.0	0.0	0.0	0.3	0.02	0.125	0.02	0.100	Note 44	
	1.2	0	100	11	0.443	0.5	1.5 Pork	3	0.5	0.2	0.0	0.0	0.1	0.3	0.02	0.03	0.01	0.005	Note 44	
	0.3	NON	100.00	WWH	1.000	YES	0.3 Pig	0.67	3	0.1 Sep	0.0	0.0	0.0	0.1	0.00	0.125	0.00	0.100	Note 44	
	0.2	0	100	1	0.443	0.1	0.3 Pork	3	0.1	0.0	0.0	0.0	0.0	0.0	0.01	0.105	0.00	0.005	Note 44	
	0.1	NON	100.00	SBA	1.000	YES	0.1 Pig	0.65	3	0.0 Sep	0.0	0.0	0.0	0.0	0.00	0.125	0.00	0.100	Note 44	
	0.0	0	100	109	0.483	0.0	0.1 Pork	3	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 44	
	0.0	0	100	11	1.000	YES	0.0 Pig	0.84	3	0.0 Sep	0.0	0.0	0.0	0.0	0.00	0.125	0.00	0.100	Note 44	
	0.0	0	100	1000	0.483	0.0	0.0 Pork	3	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 44	
	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.125	0.00	0.100	Note 44	
	0.0	NON	100.00	WWH	1.000	YES	0.0 Pig	0.67	3	0.0 Sep	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 44	
	0.0	0	100	1000	0.443	0.0	0.0 Pork	3	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 44	
	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.125	0.00	0.100	Note 44	
	0.0	NON	100.00	WWH	1.000	YES	0.0 Pig	0.67	3	0.0 Sep	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 44	
	0.0	0	100	1000	0.443	0.0	0.0 Pork	3	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 44	
	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.125	0.00	0.100	Note 44	
	0.0	NON	100.00	WWH	1.000	YES	0.0 Pig	0.67	3	0.0 Sep	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 44	
	0.0	0	100	1000	0.443	0.0	0.0 Pork	3	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 44	
	0.0	0	100	1	1.000	YES	0.0 Pig	0.65	3	0.0 Sep	0.0	0.0	0.0	0.0	0.00	0.125	0.00	0.100	Note 44	
	0.0	NON	100.00	SBA	1.000	YES	0.0 Pig	0.65	3	0.0 Sep	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 44	

N2O-N in food/beverage/fuel/other 0.0694

Year N	1	0	100.0	109	0	1	97.8	32	59.6	24.9	0.0	0.0	11.3	32	34.7	2.07	3.17	1.56	2.02	Note 45
1	Vol/NH3	N	NO	0.0	1.000	YES	26.9 Pig	0.84	3	7.5 Sep	0.0	0.0	0.0	6.2	0.08	0.125	0.08	0.100	Note 47	
Year N	32	0	29.1	11	1.000	YES	21.8	32	12.2	5.1	0.0	0.0	2.4	7.1	0.36	0.63	0.28	0.42	Note 48	
2	Vol/NH3	Pig	NO	0.0	1.000	YES	7.3 Pig	0.67	3	2.4 Sep	0.0	0.0	0.0	1.3	0.09	0.125	0.09	0.100	Note 48	
Year N	32	0	5.9	11	0.443	2.4	7.3 Pork	3	2.5	1.0	0.0	0.0	0.5	1.4	0.07	0.13	0.06	0.09	Note 47	
3	Vol/NH3	Pig	NO	0.0	1.000	YES	1.5 Pig	0.67	3	0.5 Sep	0.0	0.0	0.0	0.3	0.02	0.125	0.02	0.100	Note 48	
Year N	32	0	1.2	11	0.443	0.5	1.5 Pork	3	0.5	0.2	0.0	0.0	0.1	0.3	0.02	0.03	0.01	0.005	Note 49	
4	Vol/NH3	Pig	NO	0.0	1.000	YES	0.3 Pig	0.67	3	0.1 Sep	0.0	0.0	0.0	0.1	0.00	0.125	0.00	0.100	Note 48	
Year N	32	0	0.2	1	0.443	0.1	0.3 Pork	3	0.1	0.0	0.0	0.0	0.0	0.0	0.01	0.105	0.00	0.005	Note 49	
5	Vol/NH3	Pig	NO	0.0	1.000	YES	0.1 Pig	0.65	3	0.0 Sep	0.0	0.0	0.0	0.0	0.00	0.125	0.00	0.100	Note 48	
Year N	32	0	0.0	109	0.483	0.0	0.1 Pork	3	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 49	
Year N	32	0	0.0	1000	1.000	YES	0.0 Pig	0.84	3	0.0 Sep	0.0	0.0	0.0	0.0	0.00	0.125	0.00	0.100	Note 47	
6	Vol/NH3	Pig	NO	0.0	1.000	YES	0.0 Pork	3	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 48	
Year N	32	0	0.0	11	0.483	0.0	0.0 Pork	3	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.125	0.00	0.100	Note 47	
7	Vol/NH3	Pig	NO	0.0	1.000	YES	0.0 Pig	0.67	3	0.0 Sep	0.0	0.0	0.0	0.0	0.00	0.125	0.00	0.100	Note 48	
Year N	32	0	0.0	1000	0.443	0.0	0.0 Pork	3	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 49	
8	Vol/NH3	Pig	NO	0.0	1.000	YES	0.0 Pig	0.67	3	0.0 Sep	0.0	0.0	0.0	0.0	0.00	0.125	0.00	0.100	Note 47	
Year N	32	0	0.0	11	0.443	0.0	0.0 Pork	3	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 48	
9	Vol/NH3	Pig	NO	0.0	1.000	YES	0.0 Pig	0.67	3	0.0 Sep	0.0	0.0	0.0	0.0	0.00	0.125	0.00	0.100	Note 47	
Year N	32	0	0.0	1000	0.443	0.0	0.0 Pork	3	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 49	
10	Vol/NH3	Pig	NO	0.0	1.000	YES	0.0 Pig	0.65	3	0.0 Sep	0.0	0.0	0.0	0.0	0.00	0.125	0.00	0.100	Note 48	
Year N	32	0	0.0	1	0.483	0.0	0.0 Pork	3	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.105	0.00	0.005	Note 49	

Year Year1 Year2 Year3 Year4 Year5 Year6 Year7 Year8 Year9 Year10 Total Total/year 1

Area with crop, ha 0.68 0.16 0.03 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.88 1.29

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 3.17
 Total anthropogenic 3.17
 Total including natural 4.04

Kind of source
 Current crops
 Total anthropogenic
 Total including natural

Note 51
 Note 51
 Note 51
 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop Fuel/ Fuel/ N2O-N emission N2O-N emission
 AND CONTINUING WITH LIQUID POULTRY MANURE TO PRODUCE benefit used & use # #71/ bev #72 #8 #9 other #10
 POULTRY MEAT POULTRY MEAT
 Name 1/0 Store Field 1/0 Or- Nnorm Crop # Name Fed Food #72 #8 #9 # Name mounts Each Total Each Total

Year	Fertilizer/manure #	Store 1/0	Amounts 1/0	Field 1/0	Or-ganic 1/0	Nnorm 1/0	Crop #	Straw used 1/0	use & leach 1/0	Feed Name	Food #72	beverage #8	fuel/other #9	Manure handling #	Final N-a-	IPCC 1996	IPCC 2006	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 0.0292 0.0206 TOTAL 0.0380 0.0269 TOTAL N AMOUNTS IN KG AND % LEACHED TOTAL N AMOUNTS IN KG AND %																		
Year 1	1	0	100.0	100.0	2.2 NON	100.00	WBB	1.000	YES	97.8	42	59.6	30.4	0.0	0.0	11.3	41	29.2
Year 2	41	0	26.3	26.3	6.6 NON	100.00	WWH	1.000	YES	19.7	42	11.0	5.6	0.0	0.0	2.2	41	5.4
Year 3	41	0	4.8	4.8	1.2 NON	100.00	WWH	1.000	YES	3.6	42	2.0	1.0	0.0	0.0	0.4	41	1.0
Year 4	41	0	0.9	0.9	0.2 NON	100.00	WWH	1.000	YES	0.7	42	0.4	0.2	0.0	0.0	0.1	41	0.2
Year 5	41	0	0.2	0.2	0.0 NON	100.00	SBA	1.000	YES	0.1	42	0.1	0.0	0.0	0.0	0.0	41	0.0
Year 6	41	0	0.0	0.0	0.0 NON	100.00	WBB	1.000	YES	0.0	42	0.0	0.0	0.0	0.0	0.0	41	0.0
Year 7	41	0	0.0	0.0	0.0 NON	100.00	WWH	1.000	YES	0.0	42	0.0	0.0	0.0	0.0	0.0	41	0.0
Year 8	41	0	0.0	0.0	0.0 NON	100.00	WWH	1.000	YES	0.0	42	0.0	0.0	0.0	0.0	0.0	41	0.0
Year 9	41	0	0.0	0.0	0.0 NON	100.00	WWH	1.000	YES	0.0	42	0.0	0.0	0.0	0.0	0.0	41	0.0
Year 10	41	0	0.0	0.0	0.0 NON	100.00	SBA	1.000	YES	0.0	42	0.0	0.0	0.0	0.0	0.0	41	0.0
Year 11	41	0	0.0	0.0	0.0 NON	100.00	WBB	1.000	YES	0.0	42	0.0	0.0	0.0	0.0	0.0	41	0.0

N2O-N in food/beverage/fuel/other 0.0527

Year	Vol/NH3 N leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach	Vol/NH3 Poultry NO leach
Year 1	1.022	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867
Year 2	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867
Year 3	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867
Year 4	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867
Year 5	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867
Year 6	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867
Year 7	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867
Year 8	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867
Year 9	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867
Year 10	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867
Year 11	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867	0.867

Year 1 0.68 0.14 0.03 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

Area with crop, ha 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 2.70
 Total anthropogenic 2.70
 Total including natural 3.55

Note 43 Note 43 Note 44 Note 44 Note 44 Note 45 Note 45 Note 46 Note 47 Note 48 Note 49 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
 AND CONTINUING WITH SEPARATED POULTRY MANURE TO PRODUCE WINTER BARLEY FOR BIOETHANOL AND WINTER WHEAT FOR POULTRY MEAT

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

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED										49.3	49.3
Year N NH3	ACCORDING TO IPCC 1996										TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3										17.3	17.3
1-10 N leach	FIRST YEAR										TOTAL N AMOUNTS IN KG AND % LEACHED										33.4	33.4
	TOTAL										TOTAL N AMOUNTS IN KG AND %										100.0	100.0

N2O-N in food/beverage/fuel/other

Year	N	1	0	100.0	100.0	0	100	109	0	1	97.8	42	59.6	30.4	0.0	0.0	11.3	42	29.2	1.86	2.86	1.42	1.85	Note
1	Vol/NH3	N	NO	0.0	2.2	NON	100.00	WBB	1.000	YES	26.9	Poultry	0.84	0.84	0.0	0.0	0.0	0.0	7.3	1.55	2.31	1.18	1.48	Note 47
	N leach			1.000	1.022	ORG	1.00	1.000	0.391	11.3	26.9	Meat	4	4	0.0	0.0	7.5	42	7.3	0.10	0.0125	0.10	0.0100	Note 48
Year	N	42	0	21.9	0	100	11	11	0	1	16.4	42	9.2	4.7	0.0	0.0	1.8	42	4.5	0.26	0.47	0.20	0.0050	Note 49
2	Vol/NH3	Poultry	NO	0.0	5.5	NON	100.00	WWH	1.000	YES	5.5	Poultry	0.67	0.67	0.0	0.0	0.0	42	1.1	0.07	0.0125	0.07	0.0100	Note 48
	N leach	Sep		1.000	3.4	ORG	1.00	1.000	0.443	1.8	5.5	Meat	4	4	0.0	0.0	1.8	42	0.0	0.14	0.0105	0.04	0.0050	Note 49
Year	N	42	0	3.4	0	100	11	11	0	1	2.5	42	1.4	0.7	0.0	0.0	0.3	42	0.7	0.04	0.07	0.03	0.05	Note 47
3	Vol/NH3	Poultry	NO	0.0	0.8	NON	100.00	WWH	1.000	YES	0.8	Poultry	0.67	0.67	0.0	0.0	0.0	42	0.2	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Sep		1.000	0.5	ORG	1.00	1.000	0.443	0.3	0.8	Meat	4	4	0.0	0.0	0.3	42	0.0	0.02	0.0105	0.01	0.0050	Note 49
Year	N	42	0	0.5	0.1	NON	100.00	WWH	1.000	YES	0.1	Poultry	0.67	0.67	0.0	0.0	0.0	42	0.1	0.01	0.01	0.00	0.01	Note 47
4	Vol/NH3	Poultry	NO	0.0	0.1	NON	100.00	WWH	1.000	YES	0.1	Meat	4	4	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep		1.000	0.1	ORG	1.00	1.000	0.443	0.0	0.1	Meat	4	4	0.0	0.0	0.0	42	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	0	0.1	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65	0.65	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.00	Note 47
5	Vol/NH3	Poultry	NO	0.0	0.0	NON	100.00	WBB	1.000	YES	0.0	Poultry	0.65	0.65	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep		1.000	0.0	ORG	1.00	1.000	0.483	0.0	0.0	Meat	4	4	0.0	0.0	0.0	42	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	0	0.0	0.0	NON	100.00	WBB	1.000	YES	0.0	Poultry	0.84	0.84	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
6	Vol/NH3	Poultry	NO	0.0	0.0	NON	100.00	WBB	1.000	YES	0.0	Meat	4	4	0.0	0.0	0.0	42	0.0	0.00	0.0105	0.00	0.0050	Note 49
	N leach	Sep		1.000	0.0	ORG	1.00	1.000	0.483	0.0	0.0	Meat	4	4	0.0	0.0	0.0	42	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	0	0.0	0.0	NON	100.00	WBB	1.000	YES	0.0	Poultry	0.67	0.67	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
7	Vol/NH3	Poultry	NO	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Meat	4	4	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep		1.000	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Meat	4	4	0.0	0.0	0.0	42	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	0	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67	0.67	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
8	Vol/NH3	Poultry	NO	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Meat	4	4	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep		1.000	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Meat	4	4	0.0	0.0	0.0	42	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	0	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67	0.67	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
9	Vol/NH3	Poultry	NO	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Meat	4	4	0.0	0.0	0.0	42	0.0	0.00	0.0105	0.00	0.0050	Note 49
	N leach	Sep		1.000	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Meat	4	4	0.0	0.0	0.0	42	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	0	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65	0.65	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
10	Vol/NH3	Poultry	NO	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Meat	4	4	0.0	0.0	0.0	42	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep		1.000	0.867	ORG	1.00	1.000	0.483	0.0	0.0	Meat	4	4	0.0	0.0	0.0	42	0.0	0.00	0.0105	0.00	0.0050	Note 49

Year Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 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 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 2.86
 Total anthropogenic 2.86
 Total including natural 3.69
 Note 51 1.85 Note 51 1.85 Note 51 2.67 Note 51

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

Year Fertilizer/manure N crop Fuel/ Manure Final N2O-N emission N2O-N emission
 # Store Amounts # #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
 Name 1/0 Store Field 1/0 Or- Nnorm Crop Straw Crop use & Fuel/ other N2O-N emission IPCC 1996 N2O-N emission
 1/0 Store Amounts # #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
 Name 1/0 Store Field 1/0 Or- Nnorm Crop Straw Crop use & Fuel/ other N2O-N emission IPCC 1996 N2O-N emission
 1/0 Store Amounts # #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

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	0.0366	0.0265
TOTAL		0.0510	0.0352

N2O-N in food/beverage/fuel/other

Year	N	1	0	100.0	100.0	0	100	109	0	1	97.8	42	59.6	30.4	0.0	0.0	11.3	44	29.2	2.44	3.61	2.11	2.50
1	Vol/NH3	N	NO	0.0	0.0	2.2	NON	100.00	WBB	1.000	YES	1.000	0.84	0.84	0.0	0.0	0.0	0.0	0.0	1.90	2.60	1.66	1.88
	N leach			1.000	1.000	1.022	ORG	1.00	1.000	0.391	11.3	26.9	Meat	4	7.5	Scrap	0.0	0.0	0.0	0.02	0.0125	0.02	0.0100
Year	N	44	0	29.2	0.0	29.2	0	100	11	0	1	27.2	42	8.4	4.3	0.0	0.0	3.0	4.1	0.67	0.20	0.39	0.53
2	Vol/NH3	Poultry	NO	0.0	0.0	2.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	0.0	0.0	2.44	3.61	2.11	2.50
	N leach	Scrap		1.000	1.000	4.1	ORG	1.00	1.000	0.689	3.0	15.7	Poultry	4	2.9	Scrap	0.0	0.0	0.0	0.05	0.05	0.05	0.05
Year	N	44	0	4.1	0.0	4.1	0	100	11	0	1	3.8	42	1.2	0.6	0.0	0.0	0.4	0.6	0.07	0.12	0.06	0.08
3	Vol/NH3	Poultry	NO	0.0	0.0	0.3	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Scrap		1.000	1.000	0.6	ORG	1.00	1.000	0.689	0.4	2.2	Meat	4	0.4	Scrap	0.0	0.0	0.0	0.06	0.0200	0.02	0.0200
Year	N	44	0	0.6	0.0	0.6	0	100	11	0	1	0.5	42	0.2	0.1	0.0	0.0	0.1	0.1	0.01	0.02	0.01	0.01
4	Vol/NH3	Poultry	NO	0.0	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Scrap		1.000	1.000	0.1	ORG	1.00	1.000	0.689	0.1	0.3	Meat	4	0.1	Scrap	0.0	0.0	0.0	0.01	0.0200	0.00	0.0200
Year	N	44	0	0.1	0.0	0.1	0	100	1	0	1	0.1	42	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
5	Vol/NH3	Poultry	NO	0.0	0.0	0.0	NON	100.00	SBA	1.000	YES	1.000	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Scrap		1.000	1.000	0.0	ORG	1.00	1.000	0.711	0.0	0.0	Meat	4	0.0	Scrap	0.0	0.0	0.0	0.00	0.0200	0.00	0.0200
Year	N	44	0	0.0	0.0	0.0	0	100	109	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
6	Vol/NH3	Poultry	NO	0.0	0.0	0.0	NON	100.00	WBB	1.000	YES	1.000	0.84	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Scrap		1.000	1.000	0.0	ORG	1.00	1.000	0.712	0.0	0.0	Meat	4	0.0	Scrap	0.0	0.0	0.0	0.00	0.0200	0.00	0.0200
Year	N	44	0	0.0	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
7	Vol/NH3	Poultry	NO	0.0	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Scrap		1.000	1.000	0.0	ORG	1.00	1.000	0.689	0.0	0.0	Meat	4	0.0	Scrap	0.0	0.0	0.0	0.00	0.0200	0.00	0.0200
Year	N	44	0	0.0	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
8	Vol/NH3	Poultry	NO	0.0	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Scrap		1.000	1.000	0.0	ORG	1.00	1.000	0.689	0.0	0.0	Meat	4	0.0	Scrap	0.0	0.0	0.0	0.00	0.0200	0.00	0.0200
Year	N	44	0	0.0	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
9	Vol/NH3	Poultry	NO	0.0	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Scrap		1.000	1.000	0.0	ORG	1.00	1.000	0.689	0.0	0.0	Meat	4	0.0	Scrap	0.0	0.0	0.0	0.00	0.0200	0.00	0.0200
Year	N	44	0	0.0	0.0	0.0	0	100	1	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
10	Vol/NH3	Poultry	NO	0.0	0.0	0.0	NON	100.00	SBA	1.000	YES	1.000	0.65	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0125	0.00	0.0100
	N leach	Scrap		1.000	1.000	0.0	ORG	1.00	1.000	0.711	0.0	0.0	Meat	4	0.0	Scrap	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 0.09 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.78 1.15

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 3.61
 Total anthropogenic 3.61
 Total including natural 4.40

Note 51 2.50 Note 51
 Note 51 2.50 Note 51
 Note 51 3.28 Note 51

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

Year Fertilizer/manure # Store Amounts Name 1/0 Store Field 1/0 Or-ganic 1/0 Nnorm propor 1/0 Crop # Name 1/0 Cereal benefit 1/0 Straw used 1/0 Crop use & leach 1/0 Use # Name Fed Fodder: Uses #21-61 Food #72 N crop #71/ bev #78 Fuel/ other #9 Manure Final handling N a- # Name mounts N2O-N emission IPCC 1996 Each Total 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 N NH3	100.0	0	100	109	0	1	97.8	43	59.6	14.4	0.0	0.0	11.3	42	45.2	33.8	2.25	3.48	1.67	2.24
1-10 N leach	1.022	1.000	1.000	1.000	0.391	11.3	26.9	Poultry	0.84	0.0	0.0	0.0	0.0	Poultry	11.3	28.2	0.28	0.28	0.28	0.28
	42	0	100	11	33.9	0	1	43	14.2	3.4	0.0	0.0	2.8	42	10.8	38.0	0.95	0.95	0.95	0.95
	Poultry	NO	0.0	1.000	1.000	YES	8.5	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	2.7	100.0	0.0	0.0	0.0	0.0
	42	0	100	11	8.1	0	1	43	3.4	0.8	0.0	0.0	0.7	42	2.6	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	2.0	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	0.6	100.0	0.0	0.0	0.0	0.0
	42	0	100	11	1.9	0	1	43	0.8	0.2	0.0	0.0	0.2	42	0.6	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.5	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	0.2	100.0	0.0	0.0	0.0	0.0
	42	0	100	1	0.5	0	1	43	0.2	0.0	0.0	0.0	0.2	42	0.2	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.1	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	109	0.1	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.84	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	11	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	11	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	11	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.0	0.0	0.0	0.0
	42	0	100	1000	0.0	0	1	43	0.0	0.0	0.0	0.0	0.0	42	0.0	100.0	0.0	0.0	0.0	0.0
	Poultry	NO	0.0	1.000	1.000	YES	0.0	Poultry	0.6											

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop N crop Food/ Fuel/ Manure Final N2O-N emission
 AND CONTINUING WITH SHEEP DEEP LITTER TO PRODUCE benefit used leach use & #71/ bev #72 #8 #9 other # Name mounts Each Total IPCC 2006
 SHEEP MILK/MUTTON
 SHEEP MILK/MUTTON

Year	Fertilizer/manure #	Store 1/0	Amounts Store	Field 1/0	Or-ganic 1/0	Nnorm propor-tion, %	Crop #	Use Name	Fodder: Fed	Food	N crop #71/	Food #72	bev #8	Fuel/ other #9	Manure handling #	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total
Total N	1	0	100.0	100.0	2.2 NON	100.0	109	0	1	0	1	0	0	0	1	29.1	3.64	2.24	2.87
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	1,000	YES	1,000	YES	0	0	0	1	13.6	0.14	0.14	0.14
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.391	11.3	0.391	11.3	0	0	0	1	12.3	1.62	0.49	0.49
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	50.5	0	50.5	0	0	0	0	53	58.6	1.62	0.49	0.49
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	16.5	0	16.5	0	0	0	0	53	110.4	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0	53	100.0	0.00	0.00	0.00
Year 1-10 N leach	NO	0	0.0	0.0	ORG	1.00	1,000	0.0	1	0.0	1	0	0	0					

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

Year	Fertilizer/manure #	Store 1/0	Amounts 1/0	Field 1/0	Or-ganic 1/0	Nnorm propor-tion, %	Crop #	Straw used 1/0	Use #	Food Fed	N crop #71/	Food #72	Fuel/other #9	Manure handling #	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total	
Total N																			
Year 1-10																			
RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO FIRST YEAR TOTAL IPCC 1996 0.0284 IPCC 2006 0.0183 0.0525 0.0343 TOTAL																			

Year	N	Vol/NH3	N	100.0	0	100	109	0	1	97.8	72	0.0	0.0	59.6	0.0	11.3	72	59.6	22.8	22.7
Year 1	Vol/NH3	N	100.0	0	100	109	0	1	97.8	72	0.0	0.0	59.6	0.0	11.3	72	59.6	22.8	22.7	
Year 2	Vol/NH3	Green	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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 4	Vol/NH3	Cattle	0.0	0.0	0.0	0.0	0.0	0.0	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 5	Vol/NH3	Cattle	0.0	0.0	0.0	0.0	0.0	0.0	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 6	Vol/NH3	Cattle	0.0	0.0	0.0	0.0	0.0	0.0	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 7	Vol/NH3	Green	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	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																				
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	Total/year 1
Area with crop, ha	0.68	0.20	0.06	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.97	1.43
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
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
Increased soil N emissions, kg N2O-N/ha:	Value	1.00	0.68	0.20	0.06	0.02	0.01	0.00	0.00	0.00	0.97	1.43
Natural background emissions, kg N2O-N/ha:	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	Value	3.72	2.43	1.80	1.32	2.01	1.07	1.32	2.01	1.07	1.32	2.01
Kind of source	Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total anthropogenic	Value	3.72	2.43	1.80	1.32	2.01	1.07	1.32	2.01	1.07	1.32	2.01
Total including natural	Value	4.69	3.41	2.43	2.43	3.41	2.43	3.41	2.43	2.43	3.41	2.43

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		39.77	3.18
Year N NH3	IPCC-1996	IPCC 2006		21.60	1.85
1-10 N leach	0.0294	0.0215	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	39.54	0.22
TOTAL	0.0448	0.0333	TOTAL N AMOUNTS IN KG AND % LEACHED	100.91	0.30
			TOTAL N AMOUNTS IN KG AND %	100.00	

N2O-N/N in food/beverage/fuel/other		0.0799	0.0594	Note 46
Area with crop, ha		Total/year 1		
Natural background emissions, kg N2O-N/ha:		1.02	1.50	Note 50
		1.02	4.20	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		39.47	3.77
Year N NH3	IPCC-1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	19.87	1.86
1-10 N leach	0.0346	0.0214	TOTAL N AMOUNTS IN KG AND % LEACHED	41.58	0.20
TOTAL	0.0532	0.0334	TOTAL N AMOUNTS IN KG AND %	100.92	0.31
			TOTAL N AMOUNTS IN KG AND %	100.00	

N2O-N/N in food/beverage/fuel/other		0.0955	0.0600	Note 46
Area with crop, ha		Total/year 1		
Natural background emissions, kg N2O-N/ha:		1.00	1.47	Note 50
		1.00	4.77	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		37.96	4.43
Year N NH3	IPCC-1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	20.59	1.85
1-10 N leach	0.0399	0.0214	TOTAL N AMOUNTS IN KG AND % LEACHED	49.73	0.21
TOTAL	0.0625	0.0342	TOTAL N AMOUNTS IN KG AND %	108.27	0.37
			TOTAL N AMOUNTS IN KG AND %	100.00	

N2O-N/N in food/beverage/fuel/other		0.1168	0.0639	Note 46
Area with crop, ha		Total/year 1		
Natural background emissions, kg N2O-N/ha:		0.91	1.33	Note 50
		0.91	5.34	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		38.07	4.55
Year N NH3	IPCC-1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	5.97	2.72
1-10 N leach	0.0402	0.0301	TOTAL N AMOUNTS IN KG AND % LEACHED	55.96	0.06
TOTAL	0.0642	0.0451	TOTAL N AMOUNTS IN KG AND %	100.00	0.42
			TOTAL N AMOUNTS IN KG AND %	100.00	

N2O-N/N in food/beverage/fuel/other		0.1195	0.0840	Note 46
Area with crop, ha		Total/year 1		
Natural background emissions, kg N2O-N/ha:		0.84	1.24	Note 50
		0.84	5.39	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		37.66 37.30	2.43 Note 45
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	22.91 22.69	Note 45
1-10 N leach	0.0295	0.0216	TOTAL N AMOUNTS IN KG AND % LEACHED	40.40 40.01	Note 45
TOTAL	0.0460	0.0343	TOTAL N AMOUNTS IN KG AND %	100.97 100.00	Note 45

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

Area with crop, ha	Total/year 1	0.0865	0.0646 Note 46
Natural background emissions, kg N2O-N/ha:	1.04	1.53	Note 50
	1.04	4.30	3.48 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		37.37 37.01	2.44 Note 45
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	21.05 20.85	Note 45
1-10 N leach	0.0349	0.0216	TOTAL N AMOUNTS IN KG AND % LEACHED	42.56 42.14	Note 45
TOTAL	0.0548	0.0344	TOTAL N AMOUNTS IN KG AND %	100.98 100.00	Note 45

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

Area with crop, ha	Total/year 1	0.1040	0.0653 Note 46
Natural background emissions, kg N2O-N/ha:	1.02	1.50	Note 50
	0.91	4.91	3.46 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		35.92 33.02	2.49 Note 45
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	21.72 19.97	Note 45
1-10 N leach	0.0405	0.0216	TOTAL N AMOUNTS IN KG AND % LEACHED	51.13 47.01	Note 45
TOTAL	0.0646	0.0352	TOTAL N AMOUNTS IN KG AND %	108.78 100.00	Note 45

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

Area with crop, ha	Total/year 1	0.1275	0.0694 Note 46
Natural background emissions, kg N2O-N/ha:	0.92	1.35	Note 50
	0.92	5.50	3.41 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		36.09 36.09	3.31 Note 45
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	6.20 6.20	Note 45
1-10 N leach	0.0408	0.0307	TOTAL N AMOUNTS IN KG AND % LEACHED	57.71 57.71	Note 45
TOTAL	0.0663	0.0468	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45

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

Area with crop, ha	Total/year 1	0.1303	0.0918 Note 46
Natural background emissions, kg N2O-N/ha:	0.85	1.25	Note 50
	0.85	5.55	4.17 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		47.35	1.60
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	18.43	0.18
1-10 N leach	0.0295	0.0211	TOTAL N AMOUNTS IN KG AND % LEACHED	34.23	0.26
TOTAL	0.0396	0.0288	TOTAL N AMOUNTS IN KG AND %	100.00	100.00
N2O-N/N in food/beverage/fuel/other				0.0592	0.0432
Area with crop, ha		Total/year 1		1.36	Note 46
Natural background emissions, kg N2O-N/ha:		0.93		3.73	Note 50
		0.93			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		45.60	1.56
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	19.19	0.19
1-10 N leach	0.0335	0.0212	TOTAL N AMOUNTS IN KG AND % LEACHED	36.07	0.27
TOTAL	0.0447	0.0286	TOTAL N AMOUNTS IN KG AND %	100.86	100.00
N2O-N/N in food/beverage/fuel/other				0.0694	0.0444
Area with crop, ha		Total/year 1		1.29	Note 46
Natural background emissions, kg N2O-N/ha:		0.88		4.04	Note 50
		0.88			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		45.68	1.55
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	22.34	0.22
1-10 N leach	0.0370	0.0213	TOTAL N AMOUNTS IN KG AND % LEACHED	36.14	0.27
TOTAL	0.0491	0.0288	TOTAL N AMOUNTS IN KG AND %	104.16	100.00
N2O-N/N in food/beverage/fuel/other				0.0762	0.0448
Area with crop, ha		Total/year 1		1.29	Note 46
Natural background emissions, kg N2O-N/ha:		0.88		4.36	Note 50
		0.88			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		48.88	2.47
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	5.41	0.05
1-10 N leach	0.0382	0.0281	TOTAL N AMOUNTS IN KG AND % LEACHED	45.71	0.34
TOTAL	0.0567	0.0405	TOTAL N AMOUNTS IN KG AND %	100.00	100.00
N2O-N/N in food/beverage/fuel/other				0.0822	0.0587
Area with crop, ha		Total/year 1		1.29	Note 46
Natural background emissions, kg N2O-N/ha:		0.88		4.90	Note 50
		0.88			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		51.19 51.19	1.51
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	13.83 13.83	0.14
1-10 N leach	0.0292	0.0206	TOTAL N AMOUNTS IN KG AND % LEACHED	34.97 34.97	0.26
TOTAL	0.0380	0.0269	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other 0.0527 0.0373 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.85 1.26
 0.85 2.76 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
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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		49.32 49.32	1.42
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	17.29 17.29	0.17
1-10 N leach	0.0327	0.0209	TOTAL N AMOUNTS IN KG AND % LEACHED	33.39 33.39	0.25
TOTAL	0.0404	0.0260	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other 0.0581 0.0374 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.82 1.21
 0.82 2.67 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
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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		46.14 46.02	1.33
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	19.84 19.79	0.20
1-10 N leach	0.0350	0.0212	TOTAL N AMOUNTS IN KG AND % LEACHED	34.27 34.19	0.26
TOTAL	0.0417	0.0252	TOTAL N AMOUNTS IN KG AND %	100.25 100.00	

N2O-N/N in food/beverage/fuel/other 0.0641 0.0388 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.75 1.11
 0.75 2.54 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
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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		50.18 50.18	2.11
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	4.58 4.58	0.05
1-10 N leach	0.0366	0.0265	TOTAL N AMOUNTS IN KG AND % LEACHED	45.24 45.24	0.34
TOTAL	0.0510	0.0352	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other 0.0720 0.0498 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.78 1.15
 0.78 3.28 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	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	32.12 29.08 3.64	2.24
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	13.58 12.30 0.14	0.14
1-10 N leach	0.0417	0.0224	TOTAL N AMOUNTS IN KG AND % LEACHED	64.75 58.63 1.62	0.49
TOTAL	0.0762	0.0404	TOTAL N AMOUNTS IN KG AND %	110.45 100.00	Note 45
N2O-N/N in food/beverage/fuel/other				0.1681	0.0892 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.96			Note 50
		0.96		6.36	3.83 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	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	29.51 29.51 3.55	1.79
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	6.96 6.96 0.07	0.07
1-10 N leach	0.0428	0.0183	TOTAL N AMOUNTS IN KG AND % LEACHED	63.53 63.53 1.59	0.48
TOTAL	0.0735	0.0330	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45
N2O-N/N in food/beverage/fuel/other				0.1766	0.0792 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.89			Note 50
		0.89		6.10	3.22 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	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	24.92 22.66 3.30	1.99
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	31.02 28.20 0.31	0.31
1-10 N leach	0.0425	0.0227	TOTAL N AMOUNTS IN KG AND % LEACHED	54.06 49.14 1.35	0.41
TOTAL	0.0700	0.0382	TOTAL N AMOUNTS IN KG AND %	110.00 100.00	Note 45
N2O-N/N in food/beverage/fuel/other				0.1989	0.1086 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.95			Note 50
		0.95		5.91	3.66 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	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	26.51 26.51 3.71	2.57
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	7.30 7.30 0.07	0.07
1-10 N leach	0.0436	0.0259	TOTAL N AMOUNTS IN KG AND % LEACHED	66.19 66.19 1.65	0.50
TOTAL	0.0768	0.0443	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	Note 45
N2O-N/N in food/beverage/fuel/other				0.2053	0.1185 Note 46
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.90			Note 50
		0.90		6.34	4.04 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	27.78	27.66	1.96
Year N NH3	IPCC 1996	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	26.57	26.45	0.27
1-10 N leach	0.0284	TOTAL N AMOUNTS IN KG AND % LEACHED	46.10	45.89	0.35
TOTAL	0.0519	TOTAL N AMOUNTS IN KG AND %	100.44	100.00	

N2O-N/N in food/beverage/fuel/other 0.1323 0.0925 Note 46

Area with crop, ha Total/year 1 1.20 1.76 Note 50
 Natural background emissions, kg N2O-N/ha: 1.20 4.87 3.76 Note 51

N amount in reference crop year 2 after use of N crop as green manure, kg 26.81 Note 47
 N amount in reference crop year 1 after synthetic N fertilizer, kg 59.60 Note 47

Relative value of green manure, % 44.99

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	22.81	22.75	1.80
Year N NH3	IPCC 1996	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	22.50	22.44	0.22
1-10 N leach	0.0284	TOTAL N AMOUNTS IN KG AND % LEACHED	54.95	54.81	0.41
TOTAL	0.0525	TOTAL N AMOUNTS IN KG AND %	100.25	100.00	

N2O-N/N in food/beverage/fuel/other 0.1630 0.1066 Note 46

Area with crop, ha Total/year 1 0.97 1.43 Note 50
 Natural background emissions, kg N2O-N/ha: 0.97 4.69 3.41 Note 51

N amount in reference crop year 2 after use of N crop as green manure, kg 15.32 Note 47
 N amount in reference crop year 1 after synthetic N fertilizer, kg 59.60 Note 47

Relative value of green manure, % 25.71

SUMMARY FOOD, FUEL, AND WASTE

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER 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	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		70.87	1.07
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.20	0.02
1-10 N leach	0.0284	0.0183	TOTAL N AMOUNTS IN KG AND % LEACHED	26.93	0.20
TOTAL	0.0284	0.0183	TOTAL N AMOUNTS IN KG AND %	100.00	100.00
N2O-N/N in food/beverage/fuel/other				0.0284	0.0183
Area with crop, ha		Total/year 1		1.00	
Natural background emissions, kg N2O-N/ha:		0.68		0.68	Note 50
		0.68		2.69	1.98 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER 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	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		70.87	1.07
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.20	0.02
1-10 N leach	0.0284	0.0183	TOTAL N AMOUNTS IN KG AND % LEACHED	26.93	0.20
TOTAL	0.0284	0.0183	TOTAL N AMOUNTS IN KG AND %	100.00	100.00
N2O-N/N in food/beverage/fuel/other				0.0284	0.0183
Area with crop, ha		Total/year 1		1.00	
Natural background emissions, kg N2O-N/ha:		0.68		0.68	Note 50
		0.68		2.69	1.98 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER 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	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		70.87	1.07
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.20	0.02
1-10 N leach	0.0284	0.0183	TOTAL N AMOUNTS IN KG AND % LEACHED	26.93	0.20
TOTAL	0.0284	0.0183	TOTAL N AMOUNTS IN KG AND %	100.00	100.00
N2O-N/N in food/beverage/fuel/other				0.1786	0.1151
Area with crop, ha		Total/year 1		1.00	
Natural background emissions, kg N2O-N/ha:		0.68		0.68	Note 50
		0.68		2.69	1.98 Note 51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER 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	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		11.26	1.07
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.20	0.02
1-10 N leach	0.0494	0.0246	TOTAL N AMOUNTS IN KG AND % LEACHED	86.54	0.65
TOTAL	0.0494	0.0246	TOTAL N AMOUNTS IN KG AND %	100.00	100.00
N2O-N/N in food/beverage/fuel/other				0.3109	0.1548
Area with crop, ha		Total/year 1		1.00	
Natural background emissions, kg N2O-N/ha:		0.68		0.68	Note 50
		0.68		4.18	2.42 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 0.0294 0.0408 0.0214 0.0307
 TOTAL 0.0448 0.0663 0.0333 0.0468

N2O-N emission N2O-N emission
 IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 3.18 4.70 2.36 3.31

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

MIN MAX MIN MAX
 0.0799 0.1303 0.0594 0.0918

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

MIN MAX
 0.84 1.04
 MIN MAX
 0.84 1.25

4.20 5.55 3.33 4.17

SUMMARY PIGS RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0295 0.0382 0.0211 0.0281
 TOTAL 0.0396 0.0567 0.0286 0.0405

N2O-N emission N2O-N emission
 IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 2.8 4.02 2.02 2.87

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

MIN MAX MIN MAX
 0.0592 0.0822 0.0432 0.0587

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

MIN MAX
 0.88 0.93
 MIN MAX
 0.88 0.93

3.73 4.90 2.90 3.75

SUMMARY POULTRY RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0292 0.0412 0.0206 0.0311
 TOTAL 0.0380 0.0669 0.0252 0.0471

N2O-N emission N2O-N emission
 IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 2.7 4.74 1.79 3.34

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

MIN MAX MIN MAX
 0.0527 0.1330 0.0373 0.0938

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

MIN MAX
 0.75 0.99
 MIN MAX
 0.75 0.99

3.55 5.59 2.54 4.20

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 0.0417 0.0436 0.0183 0.0259
 TOTAL 0.0700 0.0768 0.0330 0.0443

N2O-N emission N2O-N emission
 IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 4.96 5.44 2.34 3.14

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

MIN MAX MIN MAX
 0.1681 0.2053 0.0792 0.1185

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

MIN MAX
 0.89 0.96
 MIN MAX
 0.89 0.96

5.91 6.36 3.22 4.04

SUMMARY FODDER RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0292 0.0436 0.0183 0.0311
 TOTAL 0.0380 0.0768 0.0252 0.0471

N2O-N emission N2O-N emission
 IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 2.70 5.44 1.79 3.34

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

MIN MAX MIN MAX
 0.0527 0.2053 0.0373 0.1185

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

MIN MAX
 0.75 1.25
 MIN MAX
 0.75 1.25

3.55 6.36 2.54 4.20