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

Note 33

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

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

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

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

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

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

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45
N2O-N/N in food/beverage/fuel/other																				0.0613		0.0495	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	21	71.3	21.0	0.0	0.0	14.5	21	50.2	1.31	1.67	1.25	1.40 Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Cattle	0.84				0.0	Cattle	4.0	0.06	0.0125	0.06	0.0100 Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Dairy	2				3.0	Liquid	0.0	0.30	0.0010	0.09	0.0050 Note 49
Year	N	21	1	47.0	45.9	0	100	11	0	1	34.5	21	20.7	4.9	0.0	0.0	3.8	21	15.8	0.49	0.88	0.46	0.68 Note 47
2	Vol/NH3	Cattle	YES	1.0	11.5	NON	100.00	WWH	1.000	YES	10.0	Cattle	0.67				0.0	Cattle	1.3	0.14	0.0125	0.14	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.400	3.8	10.0	Dairy	2				3.7	Liquid	0.0	0.25	0.0010	0.07	0.0050 Note 49
Year	N	21	1	14.8	14.4	0	100	11	0	1	10.8	21	6.5	1.5	0.0	0.0	1.2	21	5.0	0.15	0.28	0.15	0.21 Note 47
3	Vol/NH3	Cattle	YES	0.3	3.6	NON	100.00	WWH	1.000	YES	3.1	Cattle	0.67				0.0	Cattle	0.4	0.04	0.0125	0.04	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.400	1.2	3.1	Dairy	2				1.2	Liquid	0.0	0.08	0.0010	0.02	0.0050 Note 49
Year	N	21	1	4.6	4.5	0	100	1	0	1	3.4	21	1.9	0.4	0.0	0.0	0.4	21	1.5	0.05	0.09	0.04	0.07 Note 47
4	Vol/NH3	Cattle	YES	0.1	1.1	NON	100.00	SBA	1.000	YES	1.1	Cattle	0.65				0.0	Cattle	0.1	0.01	0.0125	0.01	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.443	0.4	1.1	Dairy	2				0.3	Liquid	0.0	0.03	0.0010	0.01	0.0050 Note 49
Year	N	21	1	1.4	1.3	0	100	10	0	1	1.0	21	0.6	0.1	0.0	0.0	0.1	21	0.4	0.01	0.03	0.01	0.02 Note 47
5	Vol/NH3	Cattle	YES	0.0	0.3	NON	100.00	WBA	1.000	YES	0.3	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.444	0.1	0.3	Dairy	2				0.1	Liquid	0.0	0.01	0.0010	0.00	0.0050 Note 49
Year	N	21	1	0.4	0.4	0	100	229	1	1	0.3	21	0.2	0.1	0.0	0.0	0.0	21	0.1	0.00	0.01	0.00	0.01 Note 47
6	Vol/NH3	Cattle	YES	0.0	0.1	NON	100.00	WRB	1.113	YES	0.1	Cattle	0.84				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.113	0.335	0.0	0.1	Dairy	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	21	1	0.1	0.1	0	100	11	0	1	0.1	21	0.1	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00 Note 47
7	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.400	0.0	0.0	Dairy	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	21	1	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00 Note 47
8	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.400	0.0	0.0	Dairy	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	21	1	0.0	0.0	0	100	1	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00 Note 47
9	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.443	0.0	0.0	Dairy	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	21	1	0.0	0.0	0	100	10	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00 Note 47
10	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.444	0.0	0.0	Dairy	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	2.95	2.38	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	2.95	2.38	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.27	0.08	0.04	0.01	0.00	0.00	0.00	0.00	0.00	1.17	Total including natural	4.12	3.55	Note 51

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45

RATIO OF N2O-N TO N IN FIRST CROP	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	46.7	46.2
ACCORDING TO			TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	26.9	26.6
FIRST YEAR	0.0246	0.0162	TOTAL N AMOUNTS IN KG AND % LEACHED	27.5	27.2
TOTAL	0.0414	0.0274	TOTAL N AMOUNTS IN KG AND %	101.1	100.0

N2O-N/N in food/beverage/fuel/other 0.0761 0.0502 Note 46

Year																										
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	21	71.3	21.0	0.0	0.0	14.5	22	50.2	1.76	2.11	1.25	1.39	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Cattle	0.84				0.0	Cattle	2.5	0.05	0.0125	0.05	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Dairy	2				3.0	Sep	0.0	0.30	0.0105	0.09	0.0050	Note 49
Year	N	22	1	48.5	44.4	0	100	11	0	1	33.3	21	18.5	4.4	0.0	0.0	3.7	22	14.2	0.60	1.04	0.45	0.69	Note 47
2	Vol/NH3	Cattle	YES	4.1	11.1	NON	100.00	WWH	1.000	YES	11.1	Cattle	0.67				0.0	Cattle	0.7	0.16	0.0125	0.16	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.443	3.7	11.1	Dairy	2				3.6	Sep	0.0	0.28	0.0105	0.08	0.0050	Note 49
Year	N	22	1	13.7	12.5	0	100	11	0	1	9.4	21	5.2	1.2	0.0	0.0	1.0	22	4.0	0.17	0.29	0.13	0.19	Note 47
3	Vol/NH3	Cattle	YES	1.2	3.1	NON	100.00	WWH	1.000	YES	3.1	Cattle	0.67				0.0	Cattle	0.2	0.04	0.0125	0.04	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.443	1.0	3.1	Dairy	2				1.0	Sep	0.0	0.08	0.0105	0.02	0.0050	Note 49
Year	N	22	1	3.9	3.5	0	100	1	0	1	2.6	21	1.4	0.3	0.0	0.0	0.3	22	1.1	0.05	0.08	0.03	0.05	Note 47
4	Vol/NH3	Cattle	YES	0.3	0.9	NON	100.00	SBA	1.000	YES	1.0	Cattle	0.65				0.0	Cattle	0.1	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.483	0.3	1.0	Dairy	2				0.2	Sep	0.0	0.02	0.0105	0.01	0.0050	Note 49
Year	N	22	1	1.0	0.9	0	100	10	0	1	0.7	21	0.4	0.1	0.0	0.0	0.1	22	0.3	0.01	0.02	0.01	0.01	Note 47
5	Vol/NH3	Cattle	YES	0.1	0.2	NON	100.00	WBA	1.000	YES	0.3	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.483	0.1	0.3	Dairy	2				0.1	Sep	0.0	0.01	0.0105	0.00	0.0050	Note 49
Year	N	22	1	0.3	0.2	0	100	229	1	1	0.2	21	0.1	0.0	0.0	0.0	0.0	22	0.1	0.00	0.01	0.00	0.00	Note 47
6	Vol/NH3	Cattle	YES	0.0	0.1	NON	100.00	WRB	1.113	YES	0.0	Cattle	0.84				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.113	0.382	0.0	0.0	Dairy	2				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	22	1	0.1	0.1	0	100	11	0	1	0.1	21	0.0	0.0	0.0	0.0	0.0	22	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.443	0.0	0.0	Dairy	2				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	22	1	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	22	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.443	0.0	0.0	Dairy	2				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	22	1	0.0	0.0	0	100	1	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	22	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.483	0.0	0.0	Dairy	2				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	22	1	0.0	0.0	0	100	10	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	22	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.483	0.0	0.0	Dairy	2				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	3.55	2.35	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	3.55	2.35	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.24	0.07	0.03	0.01	0.00	0.00	0.00	0.00	0.00	1.11	Total including natural	4.66	3.46	Note 51

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45
N2O-N/N in food/beverage/fuel/other																				0.0937		0.0538	Note 46
Year	N		1	1	100.0	100.0	0	100	229	1	1	97.8	21	71.3	21.0	0.0	0.0	14.5	23	50.2	2.20	2.56	1.25	1.39	Note 47
1	Vol/NH3	N	YES		0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Cattle	0.84				0.0	Cattle	3.0	0.05	0.0125	0.05	0.0100	Note 48
	N leach		1.022	1.000			ORG	1.00	1.113	0.271	14.5	12.0	Dairy	2				3.0	Deep	0.0	0.30	0.0200	0.09	0.0050	Note 49
Year	N		23	1	54.7	38.3	0	100	11	0	1	28.7	21	11.1	2.6	0.0	0.0	3.2	23	8.5	0.56	1.18	0.37	0.74	Note 47
2	Vol/NH3	Cattle	YES		16.4	9.6	NON	100.00	WWH	1.000	YES	14.5	Cattle	0.67				0.0	Cattle	0.5	0.27	0.0125	0.27	0.0100	Note 48
	N leach	Deep	0.600	1.159			ORG	1.00	1.000	0.614	3.2	14.5	Dairy	2				3.1	Deep	0.0	0.36	0.0200	0.11	0.0050	Note 49
Year	N		23	1	9.2	6.5	0	100	11	0	1	4.8	21	1.9	0.4	0.0	0.0	0.5	23	1.4	0.09	0.20	0.06	0.12	Note 47
3	Vol/NH3	Cattle	YES		2.8	1.6	NON	100.00	WWH	1.000	YES	2.4	Cattle	0.67				0.0	Cattle	0.1	0.04	0.0125	0.04	0.0100	Note 48
	N leach	Deep	0.600	1.159			ORG	1.00	1.000	0.614	0.5	2.4	Dairy	2				0.5	Deep	0.0	0.06	0.0200	0.02	0.0050	Note 49
Year	N		23	1	1.6	1.1	0	100	1	0	1	0.8	21	0.3	0.1	0.0	0.0	0.1	23	0.2	0.02	0.03	0.01	0.02	Note 47
4	Vol/NH3	Cattle	YES		0.5	0.3	NON	100.00	SBA	1.000	YES	0.4	Cattle	0.65				0.0	Cattle	0.0	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Deep	0.600	1.159			ORG	1.00	1.000	0.642	0.1	0.4	Dairy	2				0.1	Deep	0.0	0.01	0.0200	0.00	0.0050	Note 49
Year	N		23	1	0.2	0.2	0	100	10	0	1	0.1	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.01	0.00	0.00	Note 47
5	Vol/NH3	Cattle	YES		0.1	0.0	NON	100.00	WBA	1.000	YES	0.1	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.159			ORG	1.00	1.000	0.642	0.0	0.1	Dairy	2				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N		23	1	0.0	0.0	0	100	229	1	1	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Cattle	YES		0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Cattle	0.84				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.159			ORG	1.00	1.113	0.572	0.0	0.0	Dairy	2				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N		23	1	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Cattle	YES		0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.159			ORG	1.00	1.000	0.614	0.0	0.0	Dairy	2				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N		23	1	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Cattle	YES		0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.159			ORG	1.00	1.000	0.614	0.0	0.0	Dairy	2				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N		23	1	0.0	0.0	0	100	1	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Cattle	YES		0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.159			ORG	1.00	1.000	0.642	0.0	0.0	Dairy	2				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N		23	1	0.0	0.0	0	100	10	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Cattle	YES		0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.159			ORG	1.00	1.000	0.642	0.0	0.0	Dairy	2				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49

RATIO OF N2O-N TO N IN FIRST CROP — TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED 42.5 39.0

ACCORDING TO	IPCC 1996	IPCC 2006			
FIRST YEAR	0.0298	0.0163	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	37.1	34.0
			TOTAL N AMOUNTS IN KG AND % LEACHED	29.5	27.0
TOTAL	0.0464	0.0266	TOTAL N AMOUNTS IN KG AND %	109.0	100.0

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	3.98	2.28	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	3.98	2.28	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.14	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.95	Total including natural	4.93	3.23	Note 51

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

Year		Fertlizer/manure # Name	Store 1/0	Amounts Store	Field	Or-ganic 1/0	Nnorm propor tion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996 Each	Total	N2O-N emission IPCC 2006 Each	Total	Note 44
Total	N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED						46.5	46.5	3.38	4.61	2.98	3.40	Note 45
Year	N NH3	ACCORDING TO				IPCC 1996		IPCC 2006				TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3						6.7	6.7	0.07		0.07		Note 45
1-10	N leach	FIRST YEAR				0.0302		0.0249				TOTAL N AMOUNTS IN KG AND % LEACHED						46.8	46.8	1.17		0.35		Note 45
		TOTAL				0.0538		0.0397				TOTAL N AMOUNTS IN KG AND %						100.0	100.0					Note 45
N2O-N/N in food/beverage/fuel/other																					0.0992		0.0731	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	21	71.3	21.0	0.0	0.0	14.5	24	50.2	2.26	2.59	2.02	2.13	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Cattle	0.84				0.0	Cattle	0.0	0.02	0.0125	0.02	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Dairy	2				3.0	Graz	0.0	0.30	0.0200	0.09	0.0200	Note 49
Year	N	24	1	50.2	50.2	0	100	11	0	1	46.7	21	14.5	3.4	0.0	0.0	5.2	24	11.1	0.87	1.58	0.75	0.99	Note 47
2	Vol/NH3	Cattle	YES	0.0	3.5	NON	100.00	WWH	1.000	YES	27.0	Cattle	0.67				0.0	Cattle	0.0	0.04	0.0125	0.04	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.689	5.2	27.0	Dairy	2				5.1	Graz	0.0	0.68	0.0200	0.20	0.0200	Note 49
Year	N	24	1	11.1	11.1	0	100	11	0	1	10.3	21	3.2	0.8	0.0	0.0	1.1	24	2.5	0.19	0.35	0.17	0.22	Note 47
3	Vol/NH3	Cattle	YES	0.0	0.8	NON	100.00	WWH	1.000	YES	6.0	Cattle	0.67				0.0	Cattle	0.0	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.689	1.1	6.0	Dairy	2				1.1	Graz	0.0	0.15	0.0200	0.04	0.0200	Note 49
Year	N	24	1	2.5	2.5	0	100	1	0	1	2.3	21	0.7	0.2	0.0	0.0	0.3	24	0.5	0.04	0.08	0.04	0.05	Note 47
4	Vol/NH3	Cattle	YES	0.0	0.2	NON	100.00	SBA	1.000	YES	1.4	Cattle	0.65				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.711	0.3	1.4	Dairy	2				0.2	Graz	0.0	0.03	0.0200	0.01	0.0200	Note 49
Year	N	24	1	0.5	0.5	0	100	10	0	1	0.5	21	0.1	0.0	0.0	0.0	0.1	24	0.1	0.01	0.02	0.01	0.01	Note 47
5	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.3	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.712	0.1	0.3	Dairy	2				0.0	Graz	0.0	0.01	0.0200	0.00	0.0200	Note 49
Year	N	24	1	0.1	0.1	0	100	229	1	1	0.1	21	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Cattle	0.84				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.113	0.655	0.0	0.0	Dairy	2				0.0	Graz	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N	24	1	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.689	0.0	0.0	Dairy	2				0.0	Graz	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N	24	1	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.689	0.0	0.0	Dairy	2				0.0	Graz	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N	24	1	0.0	0.0	0	100	1	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.711	0.0	0.0	Dairy	2				0.0	Graz	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N	24	1	0.0	0.0	0	100	10	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.712	0.0	0.0	Dairy	2				0.0	Graz	0.0	0.00	0.0200	0.00	0.0200	Note 49

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	4.61	3.40	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	4.61	3.40	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.15	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.97	Total including natural	5.58	4.37	Note 51

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45
N2O-N/N in food/beverage/fuel/other																				0.0667		0.0541	Note 46
Year 1	N	1	1	100.0	100.0	0	100	229	1	1	97.8	22	71.3	18.6	0.0	0.0	14.5	21	52.7	1.31	1.67	1.26	1.41	Note 47
	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Cattle	0.84				0.0	Cattle	4.2	0.06	0.0125	0.06	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Beef	2				3.0	Liquid	0.0	0.30	0.0010	0.09	0.0050	Note 49
Year 2	N	21	1	49.3	48.2	0	100	11	0	1	36.2	22	21.7	4.5	0.0	0.0	4.0	21	17.2	0.52	0.92	0.49	0.71	Note 47
	Vol/NH3	Cattle	YES	1.1	12.1	NON	100.00	WWH	1.000	YES	10.5	Cattle	0.67				0.0	Cattle	1.4	0.15	0.0125	0.15	0.0100	Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.400	4.0	10.5	Beef	2				3.9	Liquid	0.0	0.26	0.0010	0.08	0.0050	Note 49
Year 3	N	21	1	16.1	15.7	0	100	11	0	1	11.8	22	7.1	1.5	0.0	0.0	1.3	21	5.6	0.17	0.30	0.16	0.23	Note 47
	Vol/NH3	Cattle	YES	0.4	3.9	NON	100.00	WWH	1.000	YES	3.4	Cattle	0.67				0.0	Cattle	0.4	0.05	0.0125	0.05	0.0100	Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.400	1.3	3.4	Beef	2				1.3	Liquid	0.0	0.09	0.0010	0.03	0.0050	Note 49
Year 4	N	21	1	5.2	5.1	0	100	1	0	1	3.8	22	2.1	0.4	0.0	0.0	0.4	21	1.7	0.05	0.10	0.05	0.08	Note 47
	Vol/NH3	Cattle	YES	0.1	1.3	NON	100.00	SBA	1.000	YES	1.3	Cattle	0.65				0.0	Cattle	0.1	0.02	0.0125	0.02	0.0100	Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.443	0.4	1.3	Beef	2				0.3	Liquid	0.0	0.03	0.0010	0.01	0.0050	Note 49
Year 5	N	21	1	1.6	1.6	0	100	10	0	1	1.2	22	0.7	0.1	0.0	0.0	0.1	21	0.5	0.02	0.03	0.02	0.02	Note 47
	Vol/NH3	Cattle	YES	0.0	0.4	NON	100.00	WBA	1.000	YES	0.4	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.444	0.1	0.4	Beef	2				0.1	Liquid	0.0	0.01	0.0010	0.00	0.0050	Note 49
Year 6	N	21	1	0.5	0.5	0	100	229	1	1	0.4	22	0.2	0.1	0.0	0.0	0.1	21	0.2	0.00	0.01	0.00	0.01	Note 47
	Vol/NH3	Cattle	YES	0.0	0.1	NON	100.00	WRB	1.113	YES	0.1	Cattle	0.84				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.113	0.335	0.1	0.1	Beef	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year 7	N	21	1	0.2	0.2	0	100	11	0	1	0.1	22	0.1	0.0	0.0	0.0	0.0	21	0.1	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.400	0.0	0.0	Beef	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year 8	N	21	1	0.1	0.1	0	100	11	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.400	0.0	0.0	Beef	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year 9	N	21	1	0.0	0.0	0	100	1	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.443	0.0	0.0	Beef	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year 10	N	21	1	0.0	0.0	0	100	10	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.444	0.0	0.0	Beef	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	3.04	2.47	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	3.04	2.47	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.28	0.09	0.04	0.01	0.00	0.00	0.00	0.00	0.00	1.20	Total including natural	4.24	3.66	Note 51

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

Year		Fertlizer/manure # Name	Store 1/0	Amounts Store	Field	Or-ganic 1/0	Nnorm propor tion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996 Each	Total	N2O-N emission IPCC 2006 Each	Total	Note 44
Total	N	RATIO OF N2O-N TO N IN FIRST CROP								TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED								44.2	43.7	2.68	3.68	1.93	2.42	Note 45
Year	N NH3	ACCORDING TO				IPCC 1996		IPCC 2006				TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3						28.4	28.1	0.28		0.28		Note 45
1-10	N leach	FIRST YEAR				0.0249		0.0164				TOTAL N AMOUNTS IN KG AND % LEACHED						28.5	28.2	0.71		0.21		Note 45
		TOTAL				0.0429		0.0283				TOTAL N AMOUNTS IN KG AND %						101.1	100.0					Note 45
N2O-N/N in food/beverage/fuel/other																					0.0833		0.0549	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	22	71.3	18.6	0.0	0.0	14.5	22	52.7	1.79	2.13	1.27	1.40	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Cattle	0.84				0.0	Cattle	2.6	0.05	0.0125	0.05	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Beef	2				3.0	Sep	0.0	0.30	0.0105	0.09	0.0050	Note 49
Year	N	22	1	50.9	46.6	0	100	11	0	1	34.9	22	19.5	4.0	0.0	0.0	3.9	22	15.4	0.64	1.10	0.47	0.72	Note 47
2	Vol/NH3	Cattle	YES	4.3	11.6	NON	100.00	WWH	1.000	YES	11.6	Cattle	0.67				0.0	Cattle	0.8	0.17	0.0125	0.17	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.443	3.9	11.6	Beef	2				3.8	Sep	0.0	0.29	0.0105	0.09	0.0050	Note 49
Year	N	22	1	14.9	13.6	0	100	11	0	1	10.2	22	5.7	1.2	0.0	0.0	1.1	22	4.5	0.19	0.32	0.14	0.21	Note 47
3	Vol/NH3	Cattle	YES	1.3	3.4	NON	100.00	WWH	1.000	YES	3.4	Cattle	0.67				0.0	Cattle	0.2	0.05	0.0125	0.05	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.443	1.1	3.4	Beef	2				1.1	Sep	0.0	0.08	0.0105	0.03	0.0050	Note 49
Year	N	22	1	4.4	4.0	0	100	1	0	1	3.0	22	1.5	0.3	0.0	0.0	0.3	22	1.2	0.05	0.09	0.04	0.06	Note 47
4	Vol/NH3	Cattle	YES	0.4	1.0	NON	100.00	SBA	1.000	YES	1.1	Cattle	0.65				0.0	Cattle	0.1	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.483	0.3	1.1	Beef	2				0.3	Sep	0.0	0.03	0.0105	0.01	0.0050	Note 49
Year	N	22	1	1.2	1.1	0	100	10	0	1	0.8	22	0.4	0.1	0.0	0.0	0.1	22	0.3	0.01	0.03	0.01	0.02	Note 47
5	Vol/NH3	Cattle	YES	0.1	0.3	NON	100.00	WBA	1.000	YES	0.3	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.483	0.1	0.3	Beef	2				0.1	Sep	0.0	0.01	0.0105	0.00	0.0050	Note 49
Year	N	22	1	0.3	0.3	0	100	229	1	1	0.2	22	0.1	0.0	0.0	0.0	0.0	22	0.1	0.00	0.01	0.00	0.00	Note 47
6	Vol/NH3	Cattle	YES	0.0	0.1	NON	100.00	WRB	1.113	YES	0.1	Cattle	0.84				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.113	0.382	0.0	0.1	Beef	2				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	22	1	0.1	0.1	0	100	11	0	1	0.1	22	0.0	0.0	0.0	0.0	0.0	22	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.443	0.0	0.0	Beef	2				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	22	1	0.0	0.0	0	100	11	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	22	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.443	0.0	0.0	Beef	2				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	22	1	0.0	0.0	0	100	1	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	22	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.483	0.0	0.0	Beef	2				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	22	1	0.0	0.0	0	100	10	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	22	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.016		ORG	1.00	1.000	0.483	0.0	0.0	Beef	2				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49

Year		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total	Total/year 1			
Area with crop, ha		0.77	0.25	0.07	0.03	0.01	0.00	0.00	0.00	0.00	0.00	1.13	1.47			Note 50
Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	3.68	2.42	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	3.68	2.42	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.25	0.07	0.03	0.01	0.00	0.00	0.00	0.00	0.00	1.13	Total including natural	4.81	3.56	Note 51

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

Year		Fertlizer/manure # Name	Store 1/0	Amounts Store	Field	Or-ganic 1/0	Nnorm propor tion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996 Each	Total	N2O-N emission IPCC 2006 Each	Total	Note 44
Total	N	RATIO OF N2O-N TO N IN FIRST CROP							TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED									40.0	36.5	2.97	4.12	1.73	2.35	Note 45
Year	N NH3	ACCORDING TO				IPCC 1996		IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3									39.1	35.7	0.39		0.39		Note 45
1-10	N leach	FIRST YEAR				0.0304		0.0164	TOTAL N AMOUNTS IN KG AND % LEACHED									30.5	27.8	0.76		0.23		Note 45
		TOTAL				0.0480		0.0274	TOTAL N AMOUNTS IN KG AND %									109.5	100.0					Note 45
N2O-N/N in food/beverage/fuel/other																					0.1030		0.0587	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	22	71.3	18.6	0.0	0.0	14.5	23	52.7	2.25	2.61	1.26	1.41	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Cattle	0.84				0.0	Cattle	3.2	0.05	0.0125	0.05	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Beef	2				3.0	Deep	0.0	0.30	0.0200	0.09	0.0050	Note 49
Year	N	23	1	57.5	40.2	0	100	11	0	1	30.2	22	11.6	2.4	0.0	0.0	3.3	23	9.2	0.59	1.25	0.39	0.78	Note 47
2	Vol/NH3	Cattle	YES	17.2	10.1	NON	100.00	WWH	1.000	YES	15.2	Cattle	0.67				0.0	Cattle	0.6	0.28	0.0125	0.28	0.0100	Note 48
	N leach	Deep	0.600	1.159		ORG	1.00	1.000	0.614	3.3	15.2	Beef	2				3.3	Deep	0.0	0.38	0.0200	0.11	0.0050	Note 49
Year	N	23	1	10.0	7.0	0	100	11	0	1	5.3	22	2.0	0.4	0.0	0.0	0.6	23	1.6	0.10	0.22	0.07	0.14	Note 47
3	Vol/NH3	Cattle	YES	3.0	1.8	NON	100.00	WWH	1.000	YES	2.7	Cattle	0.67				0.0	Cattle	0.1	0.05	0.0125	0.05	0.0100	Note 48
	N leach	Deep	0.600	1.159		ORG	1.00	1.000	0.614	0.6	2.7	Beef	2				0.6	Deep	0.0	0.07	0.0200	0.02	0.0050	Note 49
Year	N	23	1	1.8	1.2	0	100	1	0	1	0.9	22	0.3	0.1	0.0	0.0	0.1	23	0.3	0.02	0.04	0.01	0.02	Note 47
4	Vol/NH3	Cattle	YES	0.5	0.3	NON	100.00	SBA	1.000	YES	0.5	Cattle	0.65				0.0	Cattle	0.0	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Deep	0.600	1.159		ORG	1.00	1.000	0.642	0.1	0.5	Beef	2				0.1	Deep	0.0	0.01	0.0200	0.00	0.0050	Note 49
Year	N	23	1	0.3	0.2	0	100	10	0	1	0.2	22	0.1	0.0	0.0	0.0	0.0	23	0.0	0.00	0.01	0.00	0.00	Note 47
5	Vol/NH3	Cattle	YES	0.1	0.1	NON	100.00	WBA	1.000	YES	0.1	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.159		ORG	1.00	1.000	0.642	0.0	0.1	Beef	2				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	23	1	0.0	0.0	0	100	229	1	1	0.0	22	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Cattle	0.84				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.159		ORG	1.00	1.113	0.572	0.0	0.0	Beef	2				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	23	1	0.0	0.0	0	100	11	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.159		ORG	1.00	1.000	0.614	0.0	0.0	Beef	2				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	23	1	0.0	0.0	0	100	11	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.159		ORG	1.00	1.000	0.614	0.0	0.0	Beef	2				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	23	1	0.0	0.0	0	100	1	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.159		ORG	1.00	1.000	0.642	0.0	0.0	Beef	2				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	23	1	0.0	0.0	0	100	10	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.159		ORG	1.00	1.000	0.642	0.0	0.0	Beef	2				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49

Year	Value	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total	Total/year 1			
Area with crop, ha		0.77	0.15	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.96	1.24			Note 50
Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	4.12	2.35	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	4.12	2.35	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.15	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.96	Total including natural	5.07	3.30	Note 51

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45

RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	44.2	44.2
ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	7.0	7.0
FIRST YEAR	0.0307	0.0254	TOTAL N AMOUNTS IN KG AND % LEACHED	48.8	48.8
TOTAL	0.0559	0.0413	TOTAL N AMOUNTS IN KG AND %	100.0	100.0

N2O-N/N in food/beverage/fuel/other 0.1086 0.0801 Note 46

Year																									
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	22	71.3	18.6	0.0	0.0	14.5	24	52.7	2.31	2.64	2.07	2.18	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Cattle	0.84				0.0	Cattle	0.0	0.02	0.0125	0.02	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Beef	2				3.0	Graz	0.0	0.30	0.0200	0.09	0.0200	Note 49
Year	N	24	1	52.7	52.7	0	100	11	0	1	49.0	22	15.3	3.2	0.0	0.0	5.4	24	12.1	0.92	1.67	0.80	1.05	Note 47
2	Vol/NH3	Cattle	YES	0.0	3.7	NON	100.00	WWH	1.000	YES	28.4	Cattle	0.67				0.0	Cattle	0.0	0.04	0.0125	0.04	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.689	5.4	28.4	Beef	2				5.3	Graz	0.0	0.71	0.0200	0.21	0.0200	Note 49
Year	N	24	1	12.1	12.1	0	100	11	0	1	11.2	22	3.5	0.7	0.0	0.0	1.2	24	2.8	0.21	0.38	0.18	0.24	Note 47
3	Vol/NH3	Cattle	YES	0.0	0.8	NON	100.00	WWH	1.000	YES	6.5	Cattle	0.67				0.0	Cattle	0.0	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.689	1.2	6.5	Beef	2				1.2	Graz	0.0	0.16	0.0200	0.05	0.0200	Note 49
Year	N	24	1	2.8	2.8	0	100	1	0	1	2.6	22	0.7	0.1	0.0	0.0	0.3	24	0.6	0.05	0.09	0.04	0.05	Note 47
4	Vol/NH3	Cattle	YES	0.0	0.2	NON	100.00	SBA	1.000	YES	1.5	Cattle	0.65				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.711	0.3	1.5	Beef	2				0.2	Graz	0.0	0.04	0.0200	0.01	0.0200	Note 49
Year	N	24	1	0.6	0.6	0	100	10	0	1	0.6	22	0.2	0.0	0.0	0.0	0.1	24	0.1	0.01	0.02	0.01	0.01	Note 47
5	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.3	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.712	0.1	0.3	Beef	2				0.0	Graz	0.0	0.01	0.0200	0.00	0.0200	Note 49
Year	N	24	1	0.1	0.1	0	100	229	1	1	0.1	22	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WRB	1.113	YES	0.1	Cattle	0.84				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.113	0.655	0.0	0.1	Beef	2				0.0	Graz	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N	24	1	0.0	0.0	0	100	11	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.689	0.0	0.0	Beef	2				0.0	Graz	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N	24	1	0.0	0.0	0	100	11	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.689	0.0	0.0	Beef	2				0.0	Graz	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N	24	1	0.0	0.0	0	100	1	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.711	0.0	0.0	Beef	2				0.0	Graz	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N	24	1	0.0	0.0	0	100	10	0	1	0.0	22	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.712	0.0	0.0	Beef	2				0.0	Graz	0.0	0.00	0.0200	0.00	0.0200	Note 49

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	4.80	3.54	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	4.80	3.54	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.16	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.98	Total including natural	5.78	4.52	Note 51

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

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45

RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	57.1	57.1
ACCORDING TO	IPCC 1996 IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	22.4	22.4
FIRST YEAR	0.0195 0.0159	TOTAL N AMOUNTS IN KG AND % LEACHED	20.5	20.5
TOTAL	0.0293 0.0234	TOTAL N AMOUNTS IN KG AND %	100.0	100.0

N2O-N/N in food/beverage/fuel/other																						0.0440		0.0352	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	32	71.3	29.8	0.0	0.0	14.5	31	41.5	1.30	1.68	1.19	1.36	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Pig	0.84				0.0	Pig	5.8	0.08	0.0125	0.08	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Pork	3				3.0	Liquid	0.0	0.30	0.0010	0.09	0.0050	Note 49
Year	N	31	1	35.7	34.7	0	100	11	0	1	26.0	32	16.7	7.0	0.0	0.0	2.9	31	9.7	0.37	0.64	0.34	0.50	Note 47
2	Vol/NH3	Pig	YES	1.0	8.7	NON	100.00	WWH	1.000	YES	6.4	Pig	0.67				0.0	Pig	1.4	0.11	0.0125	0.11	0.0100	Note 48
	N leach	Liquid	1.000	1.000		ORG	1.00	1.000	0.357	2.9	6.4	Pork	3				2.8	Liquid	0.0	0.16	0.0010	0.05	0.0050	Note 49
Year	N	31	1	8.4	8.2	0	100	11	0	1	6.1	32	3.9	1.6	0.0	0.0	0.7	31	2.3	0.09	0.15	0.08	0.12	Note 47
3	Vol/NH3	Pig	YES	0.2	2.0	NON	100.00	WWH	1.000	YES	1.5	Pig	0.67				0.0	Pig	0.3	0.03	0.0125	0.03	0.0100	Note 48
	N leach	Liquid	1.000	1.000		ORG	1.00	1.000	0.357	0.7	1.5	Pork	3				0.7	Liquid	0.0	0.04	0.0010	0.01	0.0050	Note 49
Year	N	31	1	2.0	1.9	0	100	1	0	1	1.4	32	0.9	0.4	0.0	0.0	0.2	31	0.5	0.02	0.04	0.02	0.03	Note 47
4	Vol/NH3	Pig	YES	0.1	0.5	NON	100.00	SBA	1.000	YES	0.4	Pig	0.65				0.0	Pig	0.1	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Liquid	1.000	1.000		ORG	1.00	1.000	0.403	0.2	0.4	Pork	3				0.1	Liquid	0.0	0.01	0.0010	0.00	0.0050	Note 49
Year	N	31	1	0.4	0.4	0	100	10	0	1	0.3	32	0.2	0.1	0.0	0.0	0.0	31	0.1	0.00	0.01	0.00	0.01	Note 47
5	Vol/NH3	Pig	YES	0.0	0.1	NON	100.00	WBA	1.000	YES	0.1	Pig	0.66				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	1.000	1.000		ORG	1.00	1.000	0.404	0.0	0.1	Pork	3				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	31	1	0.1	0.1	0	100	229	1	1	0.1	32	0.0	0.0	0.0	0.0	0.0	31	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Pig	YES	0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Pig	0.84				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	1.000	1.000		ORG	1.00	1.113	0.287	0.0	0.0	Pork	3				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	31	1	0.0	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	31	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Pig	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Pig	0.67				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	Pork	3				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	31	1	0.0	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	31	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Pig	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Pig	0.67				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	Pork	3				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	31	1	0.0	0.0	0	100	1	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	31	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Pig	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Pig	0.65				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	1.000	1.000		ORG	1.00	1.000	0.403	0.0	0.0	Pork	3				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	31	1	0.0	0.0	0	100	10	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	31	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Pig	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Pig	0.66				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	1.000	1.000		ORG	1.00	1.000	0.404	0.0	0.0	Pork	3				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	2.51	2.01	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	2.51	2.01	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.22	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.06	Total including natural	3.57	3.07	Note 51

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45
N2O-N/N in food/beverage/fuel/other																				0.0533		0.0366	Note 46
Year	N		1	1	100.0	100.0	0	100	229	1	1	97.8	32	71.3	29.8	0.0	0.0	14.5	32	41.5	1.62	2.01	1.19	1.37	Note 47
1	Vol/NH3	N	YES		0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Pig	0.84				0.0	Pig	7.5	0.10	0.0125	0.10	0.0100	Note 48
	N leach		1.022		1.000		ORG	1.00	1.113	0.271	14.5	12.0	Pork	3				3.0	Sep	0.0	0.30	0.0105	0.09	0.0050	Note 49
Year	N		32	1	34.8	27.4	0	100	11	0	1	20.5	32	11.4	4.8	0.0	0.0	2.3	32	6.7	0.34	0.67	0.26	0.47	Note 47
2	Vol/NH3	Pig	YES		7.5	6.8	NON	100.00	WWH	1.000	YES	6.8	Pig	0.67				0.0	Pig	1.2	0.16	0.0125	0.16	0.0100	Note 48
	N leach	Sep	0.867		1.024		ORG	1.00	1.000	0.443	2.3	6.8	Pork	3				2.2	Sep	0.0	0.17	0.0105	0.05	0.0050	Note 49
Year	N		32	1	5.6	4.4	0	100	11	0	1	3.3	32	1.8	0.8	0.0	0.0	0.4	32	1.1	0.05	0.11	0.04	0.07	Note 47
3	Vol/NH3	Pig	YES		1.2	1.1	NON	100.00	WWH	1.000	YES	1.1	Pig	0.67				0.0	Pig	0.2	0.02	0.0125	0.02	0.0100	Note 48
	N leach	Sep	0.867		1.024		ORG	1.00	1.000	0.443	0.4	1.1	Pork	3				0.4	Sep	0.0	0.03	0.0105	0.01	0.0050	Note 49
Year	N		32	1	0.9	0.7	0	100	1	0	1	0.5	32	0.3	0.1	0.0	0.0	0.1	32	0.2	0.01	0.02	0.01	0.01	Note 47
4	Vol/NH3	Pig	YES		0.2	0.2	NON	100.00	SBA	1.000	YES	0.2	Pig	0.65				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867		1.024		ORG	1.00	1.000	0.483	0.1	0.2	Pork	3				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N		32	1	0.1	0.1	0	100	10	0	1	0.1	32	0.0	0.0	0.0	0.0	0.0	32	0.0	0.00	0.00	0.00	0.00	Note 47
5	Vol/NH3	Pig	YES		0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Pig	0.66				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867		1.024		ORG	1.00	1.000	0.483	0.0	0.0	Pork	3				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N		32	1	0.0	0.0	0	100	229	1	1	0.0	32	0.0	0.0	0.0	0.0	0.0	32	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Pig	YES		0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Pig	0.84				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867		1.024		ORG	1.00	1.113	0.382	0.0	0.0	Pork	3				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N		32	1	0.0	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	32	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Pig	YES		0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Pig	0.67				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867		1.024		ORG	1.00	1.000	0.443	0.0	0.0	Pork	3				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N		32	1	0.0	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	32	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Pig	YES		0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Pig	0.67				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867		1.024		ORG	1.00	1.000	0.443	0.0	0.0	Pork	3				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N		32	1	0.0	0.0	0	100	1	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	32	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Pig	YES		0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Pig	0.65				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867		1.024		ORG	1.00	1.000	0.483	0.0	0.0	Pork	3				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N		32	1	0.0	0.0	0	100	10	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	32	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Pig	YES		0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Pig	0.66				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867		1.024		ORG	1.00	1.000	0.483	0.0	0.0	Pork	3				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49

RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	52.7	52.2											
ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	28.1	27.9										
FIRST YEAR	0.0235	0.0160	TOTAL N AMOUNTS IN KG AND % LEACHED	20.2	20.0										
TOTAL	0.0328	0.0225	TOTAL N AMOUNTS IN KG AND %	101.0	100.0										

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O	Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	2.81	1.93 Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	2.81	1.93 Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.15	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.95	Total including natural	3.76	2.88 Note 51

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45
N2O-N/N in food/beverage/fuel/other																				0.0600		0.0375	Note 46
Year 1	N		1	1	100.0	100.0	0	100	229	1	1	97.8	32	71.3	29.8	0.0	0.0	14.5	33	41.5	1.88	2.31	1.17	1.39	Note 47
	Vol/NH3	N	YES		0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Pig	0.84				0.0	Pig	10.4	0.13	0.0125	0.13	0.0100	Note 48
	N leach		1.022	1.000			ORG	1.00	1.113	0.271	14.5	12.0	Pork	3				3.0	Deep	0.0	0.30	0.0200	0.09	0.0050	Note 49
Year 2	N		33	1	35.1	21.0	0	100	11	0	1	15.8	32	8.8	3.7	0.0	0.0	1.7	33	5.1	0.30	0.63	0.20	0.44	Note 47
	Vol/NH3	Pig	YES		14.0	5.3	NON	100.00	WWH	1.000	YES	5.2	Pig	0.67				0.0	Pig	1.3	0.21	0.0125	0.21	0.0100	Note 48
	N leach	Deep	0.867	1.127			ORG	1.00	1.000	0.443	1.7	5.2	Pork	3				1.7	Deep	0.0	0.13	0.0200	0.04	0.0050	Note 49
Year 3	N		33	1	4.3	2.6	0	100	11	0	1	1.9	32	1.1	0.5	0.0	0.0	0.2	33	0.6	0.04	0.08	0.02	0.05	Note 47
	Vol/NH3	Pig	YES		1.7	0.6	NON	100.00	WWH	1.000	YES	0.6	Pig	0.67				0.0	Pig	0.2	0.03	0.0125	0.03	0.0100	Note 48
	N leach	Deep	0.867	1.127			ORG	1.00	1.000	0.443	0.2	0.6	Pork	3				0.2	Deep	0.0	0.02	0.0200	0.00	0.0050	Note 49
Year 4	N		33	1	0.5	0.3	0	100	1	0	1	0.2	32	0.1	0.1	0.0	0.0	0.0	33	0.1	0.00	0.01	0.00	0.01	Note 47
	Vol/NH3	Pig	YES		0.2	0.1	NON	100.00	SBA	1.000	YES	0.1	Pig	0.65				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.867	1.127			ORG	1.00	1.000	0.483	0.0	0.1	Pork	3				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year 5	N		33	1	0.1	0.0	0	100	10	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	33	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Pig	YES		0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Pig	0.66				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.867	1.127			ORG	1.00	1.000	0.483	0.0	0.0	Pork	3				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year 6	N		33	1	0.0	0.0	0	100	229	1	1	0.0	32	0.0	0.0	0.0	0.0	0.0	33	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Pig	YES		0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Pig	0.84				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.867	1.127			ORG	1.00	1.113	0.382	0.0	0.0	Pork	3				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year 7	N		33	1	0.0	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	33	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Pig	YES		0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Pig	0.67				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.867	1.127			ORG	1.00	1.000	0.443	0.0	0.0	Pork	3				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year 8	N		33	1	0.0	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	33	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Pig	YES		0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Pig	0.67				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.867	1.127			ORG	1.00	1.000	0.443	0.0	0.0	Pork	3				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year 9	N		33	1	0.0	0.0	0	100	1	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	33	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Pig	YES		0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Pig	0.65				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.867	1.127			ORG	1.00	1.000	0.483	0.0	0.0	Pork	3				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year 10	N		33	1	0.0	0.0	0	100	10	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	33	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Pig	YES		0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Pig	0.66				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.867	1.127			ORG	1.00	1.000	0.483	0.0	0.0	Pork	3				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49

RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	50.5	48.3
ACCORDING TO	IPCC 1996 / IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	36.0	34.5
FIRST YEAR	0.0269 / 0.0162	TOTAL N AMOUNTS IN KG AND % LEACHED	18.0	17.2
TOTAL	0.0353 / 0.0221	TOTAL N AMOUNTS IN KG AND %	104.5	100.0

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	3.03	1.89	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	3.03	1.89	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	Total including natural	3.93	2.79	Note 51

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45
N2O-N/N in food/beverage/fuel/other																				0.0670		0.0506	Note 46
Year 1	N	1	1	100.0	100.0	0	100	229	1	1	97.8	32	71.3	29.8	0.0	0.0	14.5	34	41.5	2.09	2.41	1.85	1.96	Note 47
	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Pig	0.84				0.0	Pig	0.0	0.02	0.0125	0.02	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Pork	3				3.0	Root	0.0	0.30	0.0200	0.09	0.0200	Note 49
Year 2	N	34	1	41.5	41.5	0	100	11	0	1	38.6	32	17.3	7.2	0.0	0.0	4.3	34	10.1	0.74	1.19	0.64	0.80	Note 47
	Vol/NH3	Pig	YES	0.0	2.9	NON	100.00	WWH	1.000	YES	17.0	Pig	0.67				0.0	Pig	0.0	0.03	0.0125	0.03	0.0100	Note 48
	N leach	Root	0.699	1.000		ORG	1.00	1.000	0.551	4.3	17.0	Pork	3				4.2	Root	0.0	0.42	0.0200	0.13	0.0200	Note 49
Year 3	N	34	1	10.1	10.1	0	100	11	0	1	9.4	32	4.2	1.8	0.0	0.0	1.0	34	2.5	0.18	0.29	0.16	0.19	Note 47
	Vol/NH3	Pig	YES	0.0	0.7	NON	100.00	WWH	1.000	YES	4.1	Pig	0.67				0.0	Pig	0.0	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Root	0.699	1.000		ORG	1.00	1.000	0.551	1.0	4.1	Pork	3				1.0	Root	0.0	0.10	0.0200	0.03	0.0200	Note 49
Year 4	N	34	1	2.5	2.5	0	100	1	0	1	2.3	32	1.0	0.4	0.0	0.0	0.3	34	0.6	0.04	0.07	0.04	0.05	Note 47
	Vol/NH3	Pig	YES	0.0	0.2	NON	100.00	SBA	1.000	YES	1.1	Pig	0.65				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Root	0.699	1.000		ORG	1.00	1.000	0.583	0.3	1.1	Pork	3				0.2	Root	0.0	0.03	0.0200	0.01	0.0200	Note 49
Year 5	N	34	1	0.6	0.6	0	100	10	0	1	0.5	32	0.2	0.1	0.0	0.0	0.1	34	0.1	0.01	0.02	0.01	0.01	Note 47
	Vol/NH3	Pig	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.2	Pig	0.66				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Root	0.699	1.000		ORG	1.00	1.000	0.583	0.1	0.2	Pork	3				0.0	Root	0.0	0.01	0.0200	0.00	0.0200	Note 49
Year 6	N	34	1	0.1	0.1	0	100	229	1	1	0.1	32	0.1	0.0	0.0	0.0	0.0	34	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Pig	YES	0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Pig	0.84				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Root	0.699	1.000		ORG	1.00	1.113	0.502	0.0	0.0	Pork	3				0.0	Root	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year 7	N	34	1	0.0	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	34	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Pig	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Pig	0.67				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Root	0.699	1.000		ORG	1.00	1.000	0.551	0.0	0.0	Pork	3				0.0	Root	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year 8	N	34	1	0.0	0.0	0	100	11	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	34	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Pig	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Pig	0.67				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Root	0.699	1.000		ORG	1.00	1.000	0.551	0.0	0.0	Pork	3				0.0	Root	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year 9	N	34	1	0.0	0.0	0	100	1	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	34	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Pig	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Pig	0.65				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Root	0.699	1.000		ORG	1.00	1.000	0.583	0.0	0.0	Pork	3				0.0	Root	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year 10	N	34	1	0.0	0.0	0	100	10	0	1	0.0	32	0.0	0.0	0.0	0.0	0.0	34	0.0	0.00	0.00	0.00	0.00	Note 47
	Vol/NH3	Pig	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Pig	0.66				0.0	Pig	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Root	0.699	1.000		ORG	1.00	1.000	0.583	0.0	0.0	Pork	3				0.0	Root	0.0	0.00	0.0200	0.00	0.0200	Note 49

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	3.98	3.01	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	3.98	3.01	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.18	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.01	Total including natural	5.00	4.02	Note 51

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45
N2O-N/N in food/beverage/fuel/other																				0.0386		0.0299	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	42	71.3	36.4	0.0	0.0	14.5	41	34.9	1.29	1.65	1.17	1.32 Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Poultry	0.84				0.0	Poultry	3.5	0.06	0.0125	0.06	0.0100 Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Meat	4				3.0	Liquid	0.0	0.30	0.0010	0.09	0.0050 Note 49
Year	N	41	1	31.4	30.8	0	100	11	0	1	23.1	42	12.9	6.6	0.0	0.0	2.6	41	6.3	0.33	0.61	0.29	0.44 Note 47
2	Vol/NH3	Poultry	YES	0.6	7.7	NON	100.00	WWH	1.000	YES	7.7	Poultry	0.67				0.0	Poultry	0.6	0.09	0.0125	0.09	0.0100 Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.443	2.6	7.7	Meat	4				2.5	Liquid	0.0	0.19	0.0010	0.06	0.0050 Note 49
Year	N	41	1	5.7	5.6	0	100	11	0	1	4.2	42	2.3	1.2	0.0	0.0	0.5	41	1.1	0.06	0.11	0.05	0.08 Note 47
3	Vol/NH3	Poultry	YES	0.1	1.4	NON	100.00	WWH	1.000	YES	1.4	Poultry	0.67				0.0	Poultry	0.1	0.02	0.0125	0.02	0.0100 Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.443	0.5	1.4	Meat	4				0.5	Liquid	0.0	0.03	0.0010	0.01	0.0050 Note 49
Year	N	41	1	1.0	1.0	0	100	1	0	1	0.8	42	0.4	0.2	0.0	0.0	0.1	41	0.2	0.01	0.02	0.01	0.01 Note 47
4	Vol/NH3	Poultry	YES	0.0	0.3	NON	100.00	SBA	1.000	YES	0.3	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.483	0.1	0.3	Meat	4				0.1	Liquid	0.0	0.01	0.0010	0.00	0.0050 Note 49
Year	N	41	1	0.2	0.2	0	100	10	0	1	0.1	42	0.1	0.0	0.0	0.0	0.0	41	0.0	0.00	0.00	0.00	0.00 Note 47
5	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.483	0.0	0.0	Meat	4				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	41	1	0.0	0.0	0	100	229	1	1	0.0	42	0.0	0.0	0.0	0.0	0.0	41	0.0	0.00	0.00	0.00	0.00 Note 47
6	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Poultry	0.84				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.113	0.382	0.0	0.0	Meat	4				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	41	1	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	41	0.0	0.00	0.00	0.00	0.00 Note 47
7	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.443	0.0	0.0	Meat	4				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	41	1	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	41	0.0	0.00	0.00	0.00	0.00 Note 47
8	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.443	0.0	0.0	Meat	4				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	41	1	0.0	0.0	0	100	1	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	41	0.0	0.00	0.00	0.00	0.00 Note 47
9	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.483	0.0	0.0	Meat	4				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	41	1	0.0	0.0	0	100	10	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	41	0.0	0.00	0.00	0.00	0.00 Note 47
10	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.483	0.0	0.0	Meat	4				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	2.39	1.85	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	2.39	1.85	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.17	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.98	Total including natural	3.37	2.83	Note 51

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

Year		Fertlizer/manure # Name	Store 1/0	Amounts Store	Field	Or-ganic 1/0	Nnorm propor tion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996 Each	Total	N2O-N emission IPCC 2006 Each	Total	Note 44
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	42	71.3	36.4	0.0	0.0	14.5	42	34.9	1.53	1.94	1.15	1.35	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Poultry	0.84				0.0	Poultry	8.7	0.11	0.0125	0.11	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Meat	4				3.0	Sep	0.0	0.30	0.0105	0.09	0.0050	Note 49
Year	N	42	1	26.2	22.3	0	100	11	0	1	16.7	42	9.3	4.7	0.0	0.0	1.8	42	4.6	0.27	0.51	0.21	0.35	Note 47
2	Vol/NH3	Poultry	YES	3.9	5.6	NON	100.00	WWH	1.000	YES	5.6	Poultry	0.67				0.0	Poultry	1.1	0.11	0.0125	0.11	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.443	1.8	5.6	Meat	4				1.8	Sep	0.0	0.14	0.0105	0.04	0.0050	Note 49
Year	N	42	1	3.4	2.9	0	100	11	0	1	2.2	42	1.2	0.6	0.0	0.0	0.2	42	0.6	0.03	0.07	0.03	0.05	Note 47
3	Vol/NH3	Poultry	YES	0.5	0.7	NON	100.00	WWH	1.000	YES	0.7	Poultry	0.67				0.0	Poultry	0.1	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.443	0.2	0.7	Meat	4				0.2	Sep	0.0	0.02	0.0105	0.01	0.0050	Note 49
Year	N	42	1	0.4	0.4	0	100	1	0	1	0.3	42	0.1	0.1	0.0	0.0	0.0	42	0.1	0.00	0.01	0.00	0.01	Note 47
4	Vol/NH3	Poultry	YES	0.1	0.1	NON	100.00	SBA	1.000	YES	0.1	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.483	0.0	0.1	Meat	4				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.1	0.0	0	100	10	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.00	Note 47
5	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.483	0.0	0.0	Meat	4				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	229	1	1	0.0	42	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Poultry	0.84				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.113	0.382	0.0	0.0	Meat	4				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.443	0.0	0.0	Meat	4				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.443	0.0	0.0	Meat	4				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	1	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.483	0.0	0.0	Meat	4				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	10	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.483	0.0	0.0	Meat	4				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49

Total	N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	58.4	58.4	1.84	2.53	1.38	1.75	Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	23.2	23.2	0.23		0.23		Note 45
1-10	N leach	FIRST YEAR	0.0227	0.0157	TOTAL N AMOUNTS IN KG AND % LEACHED	18.4	18.4	0.46		0.14		Note 45
		TOTAL	0.0295	0.0204	TOTAL N AMOUNTS IN KG AND %	100.0	100.0					Note 45
N2O-N/N in food/beverage/fuel/other									0.0434		0.0300	Note 46

Year	Value	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total	Total/year 1		
Area with crop, ha		0.77	0.12	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91	1.18		Note 50
Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O	Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	2.53	1.75 Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	2.53	1.75 Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.12	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91	Total including natural	3.44	2.66 Note 51

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

Year		Fertlizer/manure # Name	Store 1/0	Amounts Store	Field	Or-ganic 1/0	Nnorm propor tion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996 Each	Total	N2O-N emission IPCC 2006 Each	Total	Note 44
Total	N	RATIO OF N2O-N TO N IN FIRST CROP						TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED										55.2	55.0	1.91	2.65	1.29	1.69	Note 45
Year	N NH3	ACCORDING TO				IPCC 1996		IPCC 2006				TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3						26.0	25.9	0.26		0.26		Note 45
1-10	N leach	FIRST YEAR				0.0250		0.0160				TOTAL N AMOUNTS IN KG AND % LEACHED						19.2	19.1	0.48		0.14		Note 45
		TOTAL				0.0308		0.0197				TOTAL N AMOUNTS IN KG AND %						100.3	100.0					Note 45
N2O-N/N in food/beverage/fuel/other																					0.0479		0.0307	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	42	71.3	36.4	0.0	0.0	14.5	43	34.9	1.68	2.14	1.12	1.37	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Poultry	0.84				0.0	Poultry	14.0	0.16	0.0125	0.16	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Meat	4				3.0	Deep	0.0	0.30	0.0200	0.09	0.0050	Note 49
Year	N	43	1	21.2	17.5	0	100	11	0	1	13.1	42	5.1	2.6	0.0	0.0	1.5	43	2.5	0.21	0.47	0.16	0.30	Note 47
2	Vol/NH3	Poultry	YES	3.7	4.4	NON	100.00	WWH	1.000	YES	6.6	Poultry	0.67				0.0	Poultry	1.0	0.09	0.0125	0.09	0.0100	Note 48
	N leach	Deep	0.600	1.013		ORG	1.00	1.000	0.614	1.5	6.6	Meat	4				1.4	Deep	0.0	0.17	0.0200	0.05	0.0050	Note 49
Year	N	43	1	1.5	1.2	0	100	11	0	1	0.9	42	0.4	0.2	0.0	0.0	0.1	43	0.2	0.02	0.03	0.01	0.02	Note 47
3	Vol/NH3	Poultry	YES	0.3	0.3	NON	100.00	WWH	1.000	YES	0.5	Poultry	0.67				0.0	Poultry	0.1	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Deep	0.600	1.013		ORG	1.00	1.000	0.614	0.1	0.5	Meat	4				0.1	Deep	0.0	0.01	0.0200	0.00	0.0050	Note 49
Year	N	43	1	0.1	0.1	0	100	1	0	1	0.1	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
4	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013		ORG	1.00	1.000	0.642	0.0	0.0	Meat	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	43	1	0.0	0.0	0	100	10	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
5	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013		ORG	1.00	1.000	0.642	0.0	0.0	Meat	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	43	1	0.0	0.0	0	100	229	1	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Poultry	0.84				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013		ORG	1.00	1.113	0.572	0.0	0.0	Meat	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	43	1	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013		ORG	1.00	1.000	0.614	0.0	0.0	Meat	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	43	1	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013		ORG	1.00	1.000	0.614	0.0	0.0	Meat	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	43	1	0.0	0.0	0	100	1	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013		ORG	1.00	1.000	0.642	0.0	0.0	Meat	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	43	1	0.0	0.0	0	100	10	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013		ORG	1.00	1.000	0.642	0.0	0.0	Meat	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49

Year	Value	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total	Total/year 1			
Area with crop, ha		0.77	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	1.09			Note 50
Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	2.65	1.69	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	2.65	1.69	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	Total including natural	3.49	2.53	Note 51

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45
N2O-N/N in food/beverage/fuel/other																				0.0573		0.0420	Note 46
Year	N		1	1	100.0	100.0	0	100	229	1	1	97.8	42	71.3	36.4	0.0	0.0	14.5	44	34.9	1.96	2.28	1.71	1.83	Note 47
1	Vol/NH3	N	YES		0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Poultry	0.84				0.0	Poultry	0.0	0.02	0.0125	0.02	0.0100	Note 48
	N leach		1.022	1.000			ORG	1.00	1.113	0.271	14.5	12.0	Meat	4				3.0	Scrap	0.0	0.30	0.0200	0.09	0.0200	Note 49
Year	N		44	1	34.9	34.9	0	100	11	0	1	32.5	42	10.1	5.2	0.0	0.0	3.6	44	5.0	0.55	1.04	0.47	0.63	Note 47
2	Vol/NH3	Poultry	YES		0.0	2.4	NON	100.00	WWH	1.000	YES	18.8	Poultry	0.67				0.0	Poultry	0.0	0.02	0.0125	0.02	0.0100	Note 48
	N leach	Scrap	0.484	1.000			ORG	1.00	1.000	0.689	3.6	18.8	Meat	4				3.5	Scrap	0.0	0.47	0.0200	0.14	0.0200	Note 49
Year	N		44	1	5.0	5.0	0	100	11	0	1	4.6	42	1.4	0.7	0.0	0.0	0.5	44	0.7	0.08	0.15	0.07	0.09	Note 47
3	Vol/NH3	Poultry	YES		0.0	0.3	NON	100.00	WWH	1.000	YES	2.7	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000			ORG	1.00	1.000	0.689	0.5	2.7	Meat	4				0.5	Scrap	0.0	0.07	0.0200	0.02	0.0200	Note 49
Year	N		44	1	0.7	0.7	0	100	1	0	1	0.7	42	0.2	0.1	0.0	0.0	0.1	44	0.1	0.01	0.02	0.01	0.01	Note 47
4	Vol/NH3	Poultry	YES		0.0	0.0	NON	100.00	SBA	1.000	YES	0.4	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000			ORG	1.00	1.000	0.711	0.1	0.4	Meat	4				0.1	Scrap	0.0	0.01	0.0200	0.00	0.0200	Note 49
Year	N		44	1	0.1	0.1	0	100	10	0	1	0.1	42	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
5	Vol/NH3	Poultry	YES		0.0	0.0	NON	100.00	WBA	1.000	YES	0.1	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000			ORG	1.00	1.000	0.712	0.0	0.1	Meat	4				0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N		44	1	0.0	0.0	0	100	229	1	1	0.0	42	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Poultry	YES		0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Poultry	0.84				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000			ORG	1.00	1.113	0.655	0.0	0.0	Meat	4				0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N		44	1	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Poultry	YES		0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000			ORG	1.00	1.000	0.689	0.0	0.0	Meat	4				0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N		44	1	0.0	0.0	0	100	11	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Poultry	YES		0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000			ORG	1.00	1.000	0.689	0.0	0.0	Meat	4				0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N		44	1	0.0	0.0	0	100	1	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Poultry	YES		0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000			ORG	1.00	1.000	0.711	0.0	0.0	Meat	4				0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N		44	1	0.0	0.0	0	100	10	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Poultry	YES		0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000			ORG	1.00	1.000	0.712	0.0	0.0	Meat	4				0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	Note 49

Total N	RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	61.0	61.0	2.60	3.50	2.26	2.56	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	5.0	5.0	0.05		0.05	Note 45
1-10 N leach	FIRST YEAR	0.0266	0.0213	TOTAL N AMOUNTS IN KG AND % LEACHED	33.9	33.9	0.85		0.25	Note 45
	TOTAL	0.0408	0.0299	TOTAL N AMOUNTS IN KG AND %	100.0	100.0				Note 45

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

Possible additional non IPCC N2O-N emissions	Value											Kind of source	Total IPCC and non IPCC N2O	Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	3.50	2.56 Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	3.50	2.56 Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.11	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.90	Total including natural	4.39	3.46 Note 51

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

Year	Fertilizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45

RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	43.8	43.8
ACCORDING TO IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	27.6	27.6
FIRST YEAR 0.0196	0.0166	TOTAL N AMOUNTS IN KG AND % LEACHED	28.6	28.6
TOTAL 0.0350	0.0280	TOTAL N AMOUNTS IN KG AND %	100.0	100.0

N2O-N/N in food/beverage/fuel/other																						0.0686		0.0549	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	43	71.3	17.2	0.0	0.0	14.5	41	54.1	1.31	1.69	1.26	1.43	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Poultry	0.84				0.0	Poultry	5.4	0.08	0.0125	0.08	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Eggs	4				3.0	Liquid	0.0	0.30	0.0010	0.09	0.0050	Note 49
Year	N	41	1	48.7	47.7	0	100	11	0	1	35.8	43	19.9	4.8	0.0	0.0	4.0	41	15.1	0.51	0.95	0.47	0.71	Note 47
2	Vol/NH3	Poultry	YES	1.0	11.9	NON	100.00	WWH	1.000	YES	11.9	Poultry	0.67				0.0	Poultry	1.5	0.14	0.0125	0.14	0.0100	Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.443	4.0	11.9	Eggs	4				3.9	Liquid	0.0	0.30	0.0010	0.09	0.0050	Note 49
Year	N	41	1	13.6	13.3	0	100	11	0	1	10.0	43	5.6	1.3	0.0	0.0	1.1	41	4.2	0.14	0.27	0.13	0.20	Note 47
3	Vol/NH3	Poultry	YES	0.3	3.3	NON	100.00	WWH	1.000	YES	3.3	Poultry	0.67				0.0	Poultry	0.4	0.04	0.0125	0.04	0.0100	Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.443	1.1	3.3	Eggs	4				1.1	Liquid	0.0	0.08	0.0010	0.02	0.0050	Note 49
Year	N	41	1	3.8	3.7	0	100	1	0	1	2.8	43	1.4	0.3	0.0	0.0	0.3	41	1.1	0.04	0.08	0.04	0.05	Note 47
4	Vol/NH3	Poultry	YES	0.1	0.9	NON	100.00	SBA	1.000	YES	1.0	Poultry	0.65				0.0	Poultry	0.1	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.483	0.3	1.0	Eggs	4				0.2	Liquid	0.0	0.03	0.0010	0.01	0.0050	Note 49
Year	N	41	1	1.0	1.0	0	100	10	0	1	0.7	43	0.4	0.1	0.0	0.0	0.1	41	0.3	0.01	0.02	0.01	0.01	Note 47
5	Vol/NH3	Poultry	YES	0.0	0.2	NON	100.00	WBA	1.000	YES	0.3	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.483	0.1	0.3	Eggs	4				0.1	Liquid	0.0	0.01	0.0010	0.00	0.0050	Note 49
Year	N	41	1	0.3	0.3	0	100	229	1	1	0.2	43	0.1	0.0	0.0	0.0	0.0	41	0.1	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Poultry	YES	0.0	0.1	NON	100.00	WRB	1.113	YES	0.0	Poultry	0.84				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.113	0.382	0.0	0.0	Eggs	4				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	41	1	0.1	0.1	0	100	11	0	1	0.1	43	0.0	0.0	0.0	0.0	0.0	41	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.443	0.0	0.0	Eggs	4				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	41	1	0.0	0.0	0	100	11	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	41	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.443	0.0	0.0	Eggs	4				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	41	1	0.0	0.0	0	100	1	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	41	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.483	0.0	0.0	Eggs	4				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49
Year	N	41	1	0.0	0.0	0	100	10	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	41	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Liquid	0.867	1.000		ORG	1.00	1.000	0.483	0.0	0.0	Eggs	4				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050	Note 49

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	3.00	2.41	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	3.00	2.41	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.26	0.07	0.03	0.01	0.00	0.00	0.00	0.00	0.00	1.14	Total including natural	4.14	3.54	Note 51

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

Year									Final N a-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	39.6	39.6				2.24	3.19	1.64	2.18	Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	37.6	37.6				0.38		0.38		Note 45
1-10	N leach	FIRST YEAR	0.0250	0.0171	TOTAL N AMOUNTS IN KG AND % LEACHED	22.8	22.8				0.57		0.17		Note 45
		TOTAL	0.0372	0.0255	TOTAL N AMOUNTS IN KG AND %	100.0	100.0								Note 45

N2O-N/N in food/beverage/fuel/other 0.0805 0.0552 Note 46

Year		Fertlizer/manure # Name	Store 1/0	Amounts Store	Field	Or-ganic 1/0	Nnorm propor tion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996 Each	Total	N2O-N emission IPCC 2006 Each	Total	Note 44
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	43	71.3	17.2	0.0	0.0	14.5	42	54.1	1.69	2.14	1.22	1.47	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Poultry	0.84				0.0	Poultry	13.5	0.16	0.0125	0.16	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Eggs	4				3.0	Sep	0.0	0.30	0.0105	0.09	0.0050	Note 49
Year	N	42	1	40.6	34.5	0	100	11	0	1	25.9	43	14.4	3.5	0.0	0.0	2.9	42	10.9	0.44	0.83	0.33	0.57	Note 47
2	Vol/NH3	Poultry	YES	6.1	8.6	NON	100.00	WWH	1.000	YES	8.6	Poultry	0.67				0.0	Poultry	2.7	0.17	0.0125	0.17	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.443	2.9	8.6	Eggs	4				2.8	Sep	0.0	0.22	0.0105	0.06	0.0050	Note 49
Year	N	42	1	8.2	7.0	0	100	11	0	1	5.2	43	2.9	0.7	0.0	0.0	0.6	42	2.2	0.09	0.17	0.07	0.12	Note 47
3	Vol/NH3	Poultry	YES	1.2	1.7	NON	100.00	WWH	1.000	YES	1.7	Poultry	0.67				0.0	Poultry	0.6	0.04	0.0125	0.04	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.443	0.6	1.7	Eggs	4				0.6	Sep	0.0	0.04	0.0105	0.01	0.0050	Note 49
Year	N	42	1	1.7	1.4	0	100	1	0	1	1.1	43	0.5	0.1	0.0	0.0	0.1	42	0.4	0.02	0.03	0.01	0.02	Note 47
4	Vol/NH3	Poultry	YES	0.2	0.4	NON	100.00	SBA	1.000	YES	0.4	Poultry	0.65				0.0	Poultry	0.1	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.483	0.1	0.4	Eggs	4				0.1	Sep	0.0	0.01	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.3	0.3	0	100	10	0	1	0.2	43	0.1	0.0	0.0	0.0	0.0	42	0.1	0.00	0.01	0.00	0.00	Note 47
5	Vol/NH3	Poultry	YES	0.0	0.1	NON	100.00	WBA	1.000	YES	0.1	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.483	0.0	0.1	Eggs	4				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.1	0.0	0	100	229	1	1	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Poultry	0.84				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.113	0.382	0.0	0.0	Eggs	4				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	11	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.443	0.0	0.0	Eggs	4				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	11	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.443	0.0	0.0	Eggs	4				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	1	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.483	0.0	0.0	Eggs	4				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49
Year	N	42	1	0.0	0.0	0	100	10	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Sep	0.867	1.000		ORG	1.00	1.000	0.483	0.0	0.0	Eggs	4				0.0	Sep	0.0	0.00	0.0105	0.00	0.0050	Note 49

Year		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total	Total/year 1			
Area with crop, ha		0.77	0.19	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.01	1.31			Note 50
Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	3.19	2.18	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	3.19	2.18	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.19	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.01	Total including natural	4.20	3.19	Note 51

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

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45
N2O-N/N in food/beverage/fuel/other																				0.0909		0.0562	Note 46
Year	N		1	1	100.0	100.0	0	100	229	1	1	97.8	43	71.3	17.2	0.0	0.0	14.5	43	54.1	1.91	2.45	1.18	1.51	Note 47
1	Vol/NH3	N	YES		0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Poultry	0.84				0.0	Poultry	21.6	0.24	0.0125	0.24	0.0100	Note 48
	N leach		1.022	1.000			ORG	1.00	1.113	0.271	14.5	12.0	Eggs	4				3.0	Deep	0.0	0.30	0.0200	0.09	0.0050	Note 49
Year	N		43	1	32.9	27.1	0	100	11	0	1	20.3	43	7.8	1.9	0.0	0.0	2.2	43	6.0	0.35	0.76	0.25	0.47	Note 47
2	Vol/NH3	Poultry	YES		5.8	6.8	NON	100.00	WWH	1.000	YES	10.3	Poultry	0.67				0.0	Poultry	2.4	0.15	0.0125	0.15	0.0100	Note 48
	N leach	Deep	0.600	1.013			ORG	1.00	1.000	0.614	2.2	10.3	Eggs	4				2.2	Deep	0.0	0.26	0.0200	0.08	0.0050	Note 49
Year	N		43	1	3.6	3.0	0	100	11	0	1	2.2	43	0.9	0.2	0.0	0.0	0.2	43	0.7	0.04	0.08	0.03	0.05	Note 47
3	Vol/NH3	Poultry	YES		0.6	0.7	NON	100.00	WWH	1.000	YES	1.1	Poultry	0.67				0.0	Poultry	0.3	0.02	0.0125	0.02	0.0100	Note 48
	N leach	Deep	0.600	1.013			ORG	1.00	1.000	0.614	0.2	1.1	Eggs	4				0.2	Deep	0.0	0.03	0.0200	0.01	0.0050	Note 49
Year	N		43	1	0.4	0.3	0	100	1	0	1	0.2	43	0.1	0.0	0.0	0.0	0.0	43	0.1	0.00	0.01	0.00	0.01	Note 47
4	Vol/NH3	Poultry	YES		0.1	0.1	NON	100.00	SBA	1.000	YES	0.1	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013			ORG	1.00	1.000	0.642	0.0	0.1	Eggs	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N		43	1	0.0	0.0	0	100	10	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
5	Vol/NH3	Poultry	YES		0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013			ORG	1.00	1.000	0.642	0.0	0.0	Eggs	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N		43	1	0.0	0.0	0	100	229	1	1	0.0	43	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Poultry	YES		0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Poultry	0.84				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013			ORG	1.00	1.113	0.572	0.0	0.0	Eggs	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N		43	1	0.0	0.0	0	100	11	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Poultry	YES		0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013			ORG	1.00	1.000	0.614	0.0	0.0	Eggs	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N		43	1	0.0	0.0	0	100	11	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Poultry	YES		0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013			ORG	1.00	1.000	0.614	0.0	0.0	Eggs	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N		43	1	0.0	0.0	0	100	1	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Poultry	YES		0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013			ORG	1.00	1.000	0.642	0.0	0.0	Eggs	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N		43	1	0.0	0.0	0	100	10	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Poultry	YES		0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.013			ORG	1.00	1.000	0.642	0.0	0.0	Eggs	4				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49

RATIO OF N2O-N TO N IN FIRST CROP — TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED 36.3 36.1

ACCORDING TO	IPCC 1996	IPCC 2006			
FIRST YEAR	0.0285	0.0176	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	40.6	40.4
			TOTAL N AMOUNTS IN KG AND % LEACHED	23.6	23.4
TOTAL	0.0385	0.0238	TOTAL N AMOUNTS IN KG AND %	100.5	100.0

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	3.30	2.04	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	3.30	2.04	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	Total including natural	4.19	2.93	Note 51

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45

RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	43.6	43.6
ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	7.0	7.0
FIRST YEAR	0.0311	0.0258	TOTAL N AMOUNTS IN KG AND % LEACHED	49.3	49.3
TOTAL	0.0564	0.0416	TOTAL N AMOUNTS IN KG AND %	100.0	100.0

N2O-N/N in food/beverage/fuel/other 0.1110 0.0819 Note 46

Year																									
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	43	71.3	17.2	0.0	0.0	14.5	44	54.1	2.34	2.66	2.10	2.21	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Poultry	0.84				0.0	Poultry	0.0	0.02	0.0125	0.02	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Eggs	4				3.0	Scrap	0.0	0.30	0.0200	0.09	0.0200	Note 49
Year	N	44	1	54.1	54.1	0	100	11	0	1	50.3	43	15.6	3.8	0.0	0.0	5.6	44	11.9	0.93	1.70	0.81	1.07	Note 47
2	Vol/NH3	Poultry	YES	0.0	3.8	NON	100.00	WWH	1.000	YES	29.1	Poultry	0.67				0.0	Poultry	0.0	0.04	0.0125	0.04	0.0100	Note 48
	N leach	Scrap	0.484	1.000		ORG	1.00	1.000	0.689	5.6	29.1	Eggs	4				5.4	Scrap	0.0	0.73	0.0200	0.22	0.0200	Note 49
Year	N	44	1	11.9	11.9	0	100	11	0	1	11.0	43	3.4	0.8	0.0	0.0	1.2	44	2.6	0.21	0.37	0.18	0.23	Note 47
3	Vol/NH3	Poultry	YES	0.0	0.8	NON	100.00	WWH	1.000	YES	6.4	Poultry	0.67				0.0	Poultry	0.0	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Scrap	0.484	1.000		ORG	1.00	1.000	0.689	1.2	6.4	Eggs	4				1.2	Scrap	0.0	0.16	0.0200	0.05	0.0200	Note 49
Year	N	44	1	2.6	2.6	0	100	1	0	1	2.4	43	0.7	0.2	0.0	0.0	0.3	44	0.5	0.04	0.08	0.04	0.05	Note 47
4	Vol/NH3	Poultry	YES	0.0	0.2	NON	100.00	SBA	1.000	YES	1.4	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000		ORG	1.00	1.000	0.711	0.3	1.4	Eggs	4				0.2	Scrap	0.0	0.04	0.0200	0.01	0.0200	Note 49
Year	N	44	1	0.5	0.5	0	100	10	0	1	0.5	43	0.1	0.0	0.0	0.0	0.1	44	0.1	0.01	0.02	0.01	0.01	Note 47
5	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.3	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000		ORG	1.00	1.000	0.712	0.1	0.3	Eggs	4				0.0	Scrap	0.0	0.01	0.0200	0.00	0.0200	Note 49
Year	N	44	1	0.1	0.1	0	100	229	1	1	0.1	43	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WRB	1.113	YES	0.1	Poultry	0.84				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000		ORG	1.00	1.113	0.655	0.0	0.1	Eggs	4				0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N	44	1	0.0	0.0	0	100	11	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000		ORG	1.00	1.000	0.689	0.0	0.0	Eggs	4				0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N	44	1	0.0	0.0	0	100	11	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000		ORG	1.00	1.000	0.689	0.0	0.0	Eggs	4				0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N	44	1	0.0	0.0	0	100	1	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000		ORG	1.00	1.000	0.711	0.0	0.0	Eggs	4				0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	Note 49
Year	N	44	1	0.0	0.0	0	100	10	0	1	0.0	43	0.0	0.0	0.0	0.0	0.0	44	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Poultry	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66				0.0	Poultry	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Scrap	0.484	1.000		ORG	1.00	1.000	0.712	0.0	0.0	Eggs	4				0.0	Scrap	0.0	0.00	0.0200	0.00	0.0200	Note 49

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O	Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	4.84	3.57 Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	4.84	3.57 Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.16	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.98	Total including natural	5.82	4.55 Note 51

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

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45

RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	39.4	35.1
ACCORDING TO IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	15.8	14.0
FIRST YEAR 0.0316	0.0172	TOTAL N AMOUNTS IN KG AND % LEACHED	57.3	50.9
TOTAL 0.0656	0.0350	TOTAL N AMOUNTS IN KG AND %	112.5	100.0

N2O-N/N in food/beverage/fuel/other																						0.1427		0.0761	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	51	71.3	10.1	0.0	0.0	14.5	53	61.2	2.30	2.71	1.28	1.48	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Sheep	0.84				0.0	Sheep	9.2	0.11	0.0125	0.11	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Milk/mutt	5				3.0	Deep	0.0	0.30	0.0200	0.09	0.0050	Note 49
Year	N	53	1	60.4	60.4	0	100	11	0	1	60.4	51	23.3	3.3	0.0	0.0	6.7	53	20.0	1.18	1.97	0.77	1.03	Note 47
2	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	30.4	Sheep	0.67				0.0	Sheep	3.0	0.03	0.0125	0.03	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.614	6.7	30.4	Milk/mutt	5				6.5	Deep	0.0	0.76	0.0200	0.23	0.0050	Note 49
Year	N	53	1	19.7	19.7	0	100	11	0	1	19.7	51	7.6	1.1	0.0	0.0	2.2	53	6.5	0.38	0.64	0.25	0.34	Note 47
3	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	9.9	Sheep	0.67				0.0	Sheep	1.0	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.614	2.2	9.9	Milk/mutt	5				2.1	Deep	0.0	0.25	0.0200	0.07	0.0050	Note 49
Year	N	53	1	6.5	6.5	0	100	1	0	1	6.5	51	2.3	0.3	0.0	0.0	0.7	53	2.0	0.12	0.21	0.08	0.11	Note 47
4	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	3.4	Sheep	0.65				0.0	Sheep	0.3	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.642	0.7	3.4	Milk/mutt	5				0.6	Deep	0.0	0.08	0.0200	0.03	0.0050	Note 49
Year	N	53	1	2.0	2.0	0	100	10	0	1	2.0	51	0.7	0.1	0.0	0.0	0.2	53	0.6	0.04	0.06	0.02	0.03	Note 47
5	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	1.0	Sheep	0.66				0.0	Sheep	0.1	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.642	0.2	1.0	Milk/mutt	5				0.2	Deep	0.0	0.03	0.0200	0.01	0.0050	Note 49
Year	N	53	1	0.6	0.6	0	100	229	1	1	0.6	51	0.3	0.0	0.0	0.0	0.1	53	0.2	0.01	0.02	0.01	0.01	Note 47
6	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WRB	1.113	YES	0.3	Sheep	0.84				0.0	Sheep	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.113	0.572	0.1	0.3	Milk/mutt	5				0.0	Deep	0.0	0.01	0.0200	0.00	0.0050	Note 49
Year	N	53	1	0.2	0.2	0	100	11	0	1	0.2	51	0.1	0.0	0.0	0.0	0.0	53	0.1	0.00	0.01	0.00	0.00	Note 47
7	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.1	Sheep	0.67				0.0	Sheep	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.614	0.0	0.1	Milk/mutt	5				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	53	1	0.1	0.1	0	100	11	0	1	0.1	51	0.0	0.0	0.0	0.0	0.0	53	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Sheep	0.67				0.0	Sheep	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.614	0.0	0.0	Milk/mutt	5				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	53	1	0.0	0.0	0	100	1	0	1	0.0	51	0.0	0.0	0.0	0.0	0.0	53	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Sheep	0.65				0.0	Sheep	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.642	0.0	0.0	Milk/mutt	5				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	53	1	0.0	0.0	0	100	10	0	1	0.0	51	0.0	0.0	0.0	0.0	0.0	53	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Sheep	0.66				0.0	Sheep	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.642	0.0	0.0	Milk/mutt	5				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49

Year		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total	Total/year 1	
Area with crop, ha		0.77	0.23	0.07	0.03	0.01	0.00	0.00	0.00	0.00	0.00	1.11	1.44	Note 50
Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	5.63 3.00 Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	5.63 3.00 Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.23	0.07	0.03	0.01	0.00	0.00	0.00	0.00	0.00	1.11	Total including natural	6.74 4.12 Note 51

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45
N2O-N/N in food/beverage/fuel/other																				0.1489		0.0653	Note 46
Year	N		1	1	100.0	100.0	0	100	229	1	1	97.8	51	71.3	10.1	0.0	0.0	14.5	54	61.2	2.48	2.81	1.02	1.13	Note 47
1	Vol/NH3	N	YES		0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Sheep	0.84				0.0	Sheep	0.0	0.02	0.0125	0.02	0.0100	Note 48
	N leach		1.022	1.000			ORG	1.00	1.113	0.271	14.5	12.0	Milk/mutt	5				3.0	Graz	0.0	0.30	0.0200	0.09	0.0000	Note 49
Year	N		54	1	61.2	61.2	0	100	11	0	1	56.9	51	17.7	2.5	0.0	0.0	6.3	54	15.2	1.09	1.96	0.65	0.94	Note 47
2	Vol/NH3	Sheep	YES		0.0	4.3	NON	100.00	WWH	1.000	YES	32.9	Sheep	0.67				0.0	Sheep	0.0	0.04	0.0125	0.04	0.0100	Note 48
	N leach	Graz	0.484	1.000			ORG	1.00	1.000	0.689	6.3	32.9	Milk/mutt	5				6.2	Graz	0.0	0.82	0.0200	0.25	0.0000	Note 49
Year	N		54	1	15.2	15.2	0	100	11	0	1	14.1	51	4.4	0.6	0.0	0.0	1.6	54	3.8	0.27	0.49	0.16	0.23	Note 47
3	Vol/NH3	Sheep	YES		0.0	1.1	NON	100.00	WWH	1.000	YES	8.2	Sheep	0.67				0.0	Sheep	0.0	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Graz	0.484	1.000			ORG	1.00	1.000	0.689	1.6	8.2	Milk/mutt	5				1.5	Graz	0.0	0.20	0.0200	0.06	0.0000	Note 49
Year	N		54	1	3.8	3.8	0	100	1	0	1	3.5	51	1.0	0.1	0.0	0.0	0.4	54	0.9	0.07	0.12	0.04	0.06	Note 47
4	Vol/NH3	Sheep	YES		0.0	0.3	NON	100.00	SBA	1.000	YES	2.1	Sheep	0.65				0.0	Sheep	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000			ORG	1.00	1.000	0.711	0.4	2.1	Milk/mutt	5				0.3	Graz	0.0	0.05	0.0200	0.02	0.0000	Note 49
Year	N		54	1	0.9	0.9	0	100	10	0	1	0.8	51	0.2	0.0	0.0	0.0	0.1	54	0.2	0.01	0.03	0.01	0.01	Note 47
5	Vol/NH3	Sheep	YES		0.0	0.1	NON	100.00	WBA	1.000	YES	0.5	Sheep	0.66				0.0	Sheep	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000			ORG	1.00	1.000	0.712	0.1	0.5	Milk/mutt	5				0.1	Graz	0.0	0.01	0.0200	0.00	0.0000	Note 49
Year	N		54	1	0.2	0.2	0	100	229	1	1	0.2	51	0.1	0.0	0.0	0.0	0.0	54	0.1	0.00	0.01	0.00	0.00	Note 47
6	Vol/NH3	Sheep	YES		0.0	0.0	NON	100.00	WRB	1.113	YES	0.1	Sheep	0.84				0.0	Sheep	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000			ORG	1.00	1.113	0.655	0.0	0.1	Milk/mutt	5				0.0	Graz	0.0	0.00	0.0200	0.00	0.0000	Note 49
Year	N		54	1	0.1	0.1	0	100	11	0	1	0.1	51	0.0	0.0	0.0	0.0	0.0	54	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Sheep	YES		0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Sheep	0.67				0.0	Sheep	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000			ORG	1.00	1.000	0.689	0.0	0.0	Milk/mutt	5				0.0	Graz	0.0	0.00	0.0200	0.00	0.0000	Note 49
Year	N		54	1	0.0	0.0	0	100	11	0	1	0.0	51	0.0	0.0	0.0	0.0	0.0	54	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Sheep	YES		0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Sheep	0.67				0.0	Sheep	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000			ORG	1.00	1.000	0.689	0.0	0.0	Milk/mutt	5				0.0	Graz	0.0	0.00	0.0200	0.00	0.0000	Note 49
Year	N		54	1	0.0	0.0	0	100	1	0	1	0.0	51	0.0	0.0	0.0	0.0	0.0	54	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Sheep	YES		0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Sheep	0.65				0.0	Sheep	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000			ORG	1.00	1.000	0.711	0.0	0.0	Milk/mutt	5				0.0	Graz	0.0	0.00	0.0200	0.00	0.0000	Note 49
Year	N		54	1	0.0	0.0	0	100	10	0	1	0.0	51	0.0	0.0	0.0	0.0	0.0	54	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Sheep	YES		0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Sheep	0.66				0.0	Sheep	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Graz	0.484	1.000			ORG	1.00	1.000	0.712	0.0	0.0	Milk/mutt	5				0.0	Graz	0.0	0.00	0.0200	0.00	0.0000	Note 49

RATIO OF N2O-N TO N IN FIRST CROP — TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED 36.3 36.3
ACCORDING TO IPCC 1996 IPCC 2006 — TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3 7.9 7.9
FIRST YEAR 0.0327 0.0131 — TOTAL N AMOUNTS IN KG AND % LEACHED 55.8 55.8
TOTAL 0.0630 0.0276 — TOTAL N AMOUNTS IN KG AND % 100.0 100.0

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	5.40	2.37	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	5.40	2.37	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.18	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.02	Total including natural	6.42	3.39	Note 51

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

Year		Fertlizer/manure # Name	Store 1/0	Amounts Store	Field	Or-ganic 1/0	Nnorm propor tion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996 Each	Total	N2O-N emission IPCC 2006 Each	Total	Note 44
Total	N	RATIO OF N2O-N TO N IN FIRST CROP									TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED							29.0	26.0	3.38	4.78	1.95	2.68	Note 45
Year	N NH3	ACCORDING TO				IPCC 1996		IPCC 2006			TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3							44.1	39.6	0.44		0.44		Note 45
1-10	N leach	FIRST YEAR				0.0324		0.0175			TOTAL N AMOUNTS IN KG AND % LEACHED							38.3	34.3	0.96		0.29		Note 45
		TOTAL				0.0557		0.0313			TOTAL N AMOUNTS IN KG AND %							111.4	100.0					Note 45
N2O-N/N in food/beverage/fuel/other																					0.1648		0.0925	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	61	71.3	6.8	0.0	0.0	14.5	63	64.4	2.36	2.77	1.29	1.50	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Goat	0.84				0.0	Goat	9.7	0.12	0.0125	0.12	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Milk/mea	6				3.0	Deep	0.0	0.30	0.0200	0.09	0.0050	Note 49
Year	N	63	1	63.7	54.1	0	100	11	0	1	40.6	61	15.6	1.5	0.0	0.0	4.5	63	14.1	0.80	1.57	0.52	0.93	Note 47
2	Vol/NH3	Goat	YES	9.5	13.5	NON	100.00	WWH	1.000	YES	20.4	Goat	0.67				0.0	Goat	2.1	0.25	0.0125	0.25	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.614	4.5	20.4	Milk/mea	6				4.4	Deep	0.0	0.51	0.0200	0.15	0.0050	Note 49
Year	N	63	1	14.0	11.9	0	100	11	0	1	8.9	61	3.4	0.3	0.0	0.0	1.0	63	3.1	0.18	0.34	0.11	0.20	Note 47
3	Vol/NH3	Goat	YES	2.1	3.0	NON	100.00	WWH	1.000	YES	4.5	Goat	0.67				0.0	Goat	0.5	0.06	0.0125	0.06	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.614	1.0	4.5	Milk/mea	6				1.0	Deep	0.0	0.11	0.0200	0.03	0.0050	Note 49
Year	N	63	1	3.1	2.6	0	100	1	0	1	2.0	61	0.7	0.1	0.0	0.0	0.2	63	0.6	0.04	0.08	0.02	0.04	Note 47
4	Vol/NH3	Goat	YES	0.5	0.7	NON	100.00	SBA	1.000	YES	1.0	Goat	0.65				0.0	Goat	0.1	0.01	0.0125	0.01	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.642	0.2	1.0	Milk/mea	6				0.2	Deep	0.0	0.03	0.0200	0.01	0.0050	Note 49
Year	N	63	1	0.6	0.5	0	100	10	0	1	0.4	61	0.1	0.0	0.0	0.0	0.0	63	0.1	0.01	0.02	0.00	0.01	Note 47
5	Vol/NH3	Goat	YES	0.1	0.1	NON	100.00	WBA	1.000	YES	0.2	Goat	0.66				0.0	Goat	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.642	0.0	0.2	Milk/mea	6				0.0	Deep	0.0	0.01	0.0200	0.00	0.0050	Note 49
Year	N	63	1	0.1	0.1	0	100	229	1	1	0.1	61	0.0	0.0	0.0	0.0	0.0	63	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	WRB	1.113	YES	0.0	Goat	0.84				0.0	Goat	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.113	0.572	0.0	0.0	Milk/mea	6				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	63	1	0.0	0.0	0	100	11	0	1	0.0	61	0.0	0.0	0.0	0.0	0.0	63	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Goat	0.67				0.0	Goat	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.614	0.0	0.0	Milk/mea	6				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	63	1	0.0	0.0	0	100	11	0	1	0.0	61	0.0	0.0	0.0	0.0	0.0	63	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Goat	0.67				0.0	Goat	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.614	0.0	0.0	Milk/mea	6				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	63	1	0.0	0.0	0	100	1	0	1	0.0	61	0.0	0.0	0.0	0.0	0.0	63	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Goat	0.65				0.0	Goat	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.642	0.0	0.0	Milk/mea	6				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49
Year	N	63	1	0.0	0.0	0	100	10	0	1	0.0	61	0.0	0.0	0.0	0.0	0.0	63	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Goat	0.66				0.0	Goat	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach	Deep	0.600	1.162		ORG	1.00	1.000	0.642	0.0	0.0	Milk/mea	6				0.0	Deep	0.0	0.00	0.0200	0.00	0.0050	Note 49

Year		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total	Total/year 1			
Area with crop, ha		0.77	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.03	1.34			Note 50
Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	4.78	2.68	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	4.78	2.68	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.20	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.03	Total including natural	5.81	3.72	Note 51

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

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

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45
N2O-N/N in food/beverage/fuel/other																				0.1736		0.1018	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	61	71.3	6.8	0.0	0.0	14.5	64	64.4	2.55	2.87	1.66	1.77 Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Goat	0.84				0.0	Goat	0.0	0.02	0.0125	0.02	0.0100 Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	Milk/meat	6				3.0	Graz	0.0	0.30	0.0200	0.09	0.0100 Note 49
Year	N	64	1	64.4	64.4	0	100	11	0	1	59.9	61	18.6	1.8	0.0	0.0	6.6	64	16.8	1.17	2.08	0.85	1.15 Note 47
2	Vol/NH3	Goat	YES	0.0	4.5	NON	100.00	WWH	1.000	YES	34.7	Goat	0.67				0.0	Goat	0.0	0.05	0.0125	0.05	0.0100 Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.689	6.6	34.7	Milk/meat	6				6.5	Graz	0.0	0.87	0.0200	0.26	0.0100 Note 49
Year	N	64	1	16.8	16.8	0	100	11	0	1	15.7	61	4.9	0.5	0.0	0.0	1.7	64	4.4	0.31	0.54	0.22	0.30 Note 47
3	Vol/NH3	Goat	YES	0.0	1.2	NON	100.00	WWH	1.000	YES	9.1	Goat	0.67				0.0	Goat	0.0	0.01	0.0125	0.01	0.0100 Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.689	1.7	9.1	Milk/meat	6				1.7	Graz	0.0	0.23	0.0200	0.07	0.0100 Note 49
Year	N	64	1	4.4	4.4	0	100	1	0	1	4.1	61	1.2	0.1	0.0	0.0	0.5	64	1.1	0.08	0.14	0.06	0.08 Note 47
4	Vol/NH3	Goat	YES	0.0	0.3	NON	100.00	SBA	1.000	YES	2.4	Goat	0.65				0.0	Goat	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.711	0.5	2.4	Milk/meat	6				0.4	Graz	0.0	0.06	0.0200	0.02	0.0100 Note 49
Year	N	64	1	1.1	1.1	0	100	10	0	1	1.0	61	0.3	0.0	0.0	0.0	0.1	64	0.3	0.02	0.03	0.01	0.02 Note 47
5	Vol/NH3	Goat	YES	0.0	0.1	NON	100.00	WBA	1.000	YES	0.6	Goat	0.66				0.0	Goat	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.712	0.1	0.6	Milk/meat	6				0.1	Graz	0.0	0.01	0.0200	0.00	0.0100 Note 49
Year	N	64	1	0.3	0.3	0	100	229	1	1	0.2	61	0.1	0.0	0.0	0.0	0.0	64	0.1	0.00	0.01	0.00	0.00 Note 47
6	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	WRB	1.113	YES	0.1	Goat	0.84				0.0	Goat	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.113	0.655	0.0	0.1	Milk/meat	6				0.0	Graz	0.0	0.00	0.0200	0.00	0.0100 Note 49
Year	N	64	1	0.1	0.1	0	100	11	0	1	0.1	61	0.0	0.0	0.0	0.0	0.0	64	0.0	0.00	0.00	0.00	0.00 Note 47
7	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Goat	0.67				0.0	Goat	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.689	0.0	0.0	Milk/meat	6				0.0	Graz	0.0	0.00	0.0200	0.00	0.0100 Note 49
Year	N	64	1	0.0	0.0	0	100	11	0	1	0.0	61	0.0	0.0	0.0	0.0	0.0	64	0.0	0.00	0.00	0.00	0.00 Note 47
8	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Goat	0.67				0.0	Goat	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.689	0.0	0.0	Milk/meat	6				0.0	Graz	0.0	0.00	0.0200	0.00	0.0100 Note 49
Year	N	64	1	0.0	0.0	0	100	1	0	1	0.0	61	0.0	0.0	0.0	0.0	0.0	64	0.0	0.00	0.00	0.00	0.00 Note 47
9	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Goat	0.65				0.0	Goat	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.711	0.0	0.0	Milk/meat	6				0.0	Graz	0.0	0.00	0.0200	0.00	0.0100 Note 49
Year	N	64	1	0.0	0.0	0	100	10	0	1	0.0	61	0.0	0.0	0.0	0.0	0.0	64	0.0	0.00	0.00	0.00	0.00 Note 47
10	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Goat	0.66				0.0	Goat	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Graz	0.484	1.000		ORG	1.00	1.000	0.712	0.0	0.0	Milk/meat	6				0.0	Graz	0.0	0.00	0.0200	0.00	0.0100 Note 49

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

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O	Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	5.68	3.33 Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	5.68	3.33 Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.19	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.00	1.04	Total including natural	6.72	4.37 Note 51

N CHAIN STARTING WITH	N FERTILIZER	TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	HIGH N CROP	Note 43
AND CONTINUING WITH	GREEN MANURE HIGH N	TO PRODUCE	WINTER WHEAT FOR	CATTLE DAIRY	Note 43

Year	Fertilizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/#72	Food/bev #8	Fuel/other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45
N2O-N/N in food/beverage/fuel/other																				0.1047		0.0776	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	71	0.0	0.0	71.3	0.0	14.5	71	71.3	1.26	1.58	1.02	1.13 Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	N crop	0.84				0.0	Green	0.0	0.02	0.0125	0.02	0.0100 Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	high N	71				3.0	High	0.0	0.30	0.0000	0.09	0.0000 Note 49
Year	N	71	1	71.3	71.3	0	100	11	0	1	53.5	21	32.1	7.6	0.0	0.0	5.9	21	24.5	0.76	1.35	0.72	1.03 Note 47
2	Vol/NH3	Green	YES	0.0	17.8	NON	100.00	WWH	1.000	YES	15.5	Cattle	0.67				0.0	Cattle	2.0	0.20	0.0125	0.20	0.0100 Note 48
	N leach	High	0.933	1.000		ORG	1.00	1.000	0.400	5.9	15.5	Dairy	2				5.8	Liquid	0.0	0.39	0.0010	0.12	0.0050 Note 49
Year	N	21	1	22.9	22.4	0	100	11	0	1	16.8	21	10.1	2.4	0.0	0.0	1.9	21	7.7	0.24	0.43	0.23	0.33 Note 47
3	Vol/NH3	Cattle	YES	0.5	5.6	NON	100.00	WWH	1.000	YES	4.9	Cattle	0.67				0.0	Cattle	0.6	0.07	0.0125	0.07	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.400	1.9	4.9	Dairy	2				1.8	Liquid	0.0	0.12	0.0010	0.04	0.0050 Note 49
Year	N	21	1	7.2	7.0	0	100	1	0	1	5.3	21	2.9	0.7	0.0	0.0	0.6	21	2.3	0.07	0.14	0.07	0.10 Note 47
4	Vol/NH3	Cattle	YES	0.2	1.8	NON	100.00	SBA	1.000	YES	1.7	Cattle	0.65				0.0	Cattle	0.2	0.02	0.0125	0.02	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.443	0.6	1.7	Dairy	2				0.5	Liquid	0.0	0.04	0.0010	0.01	0.0050 Note 49
Year	N	21	1	2.1	2.1	0	100	10	0	1	1.6	21	0.9	0.2	0.0	0.0	0.2	21	0.7	0.02	0.04	0.02	0.03 Note 47
5	Vol/NH3	Cattle	YES	0.0	0.5	NON	100.00	WBA	1.000	YES	0.5	Cattle	0.66				0.0	Cattle	0.1	0.01	0.0125	0.01	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.444	0.2	0.5	Dairy	2				0.1	Liquid	0.0	0.01	0.0010	0.00	0.0050 Note 49
Year	N	21	1	0.6	0.6	0	100	229	1	1	0.5	71	0.0	0.0	0.3	0.0	0.1	71	0.3	0.01	0.01	0.00	0.01 Note 47
6	Vol/NH3	Cattle	YES	0.0	0.2	NON	100.00	WRB	1.113	YES	0.1	N crop	0.84				0.0	Green	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.113	0.335	0.1	0.1	high N	71				0.0	High	0.0	0.00	0.0000	0.00	0.0000 Note 49
Year	N	71	1	0.3	0.3	0	100	11	0	1	0.2	21	0.1	0.0	0.0	0.0	0.0	21	0.1	0.00	0.01	0.00	0.00 Note 47
7	Vol/NH3	Green	YES	0.0	0.1	NON	100.00	WWH	1.000	YES	0.1	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	High	0.933	1.000		ORG	1.00	1.000	0.400	0.0	0.1	Dairy	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	21	1	0.1	0.1	0	100	11	0	1	0.1	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00 Note 47
8	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.400	0.0	0.0	Dairy	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	21	1	0.0	0.0	0	100	1	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00 Note 47
9	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.443	0.0	0.0	Dairy	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	21	1	0.0	0.0	0	100	10	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00 Note 47
10	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.444	0.0	0.0	Dairy	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total	Total/year 1	
Area with crop, ha	0.77	0.41	0.13	0.05	0.01	0.00	0.00	0.00	0.00	0.00	1.39	1.80	Note 50

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	3.56	2.64	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	3.56	2.64	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.41	0.13	0.05	0.01	0.00	0.00	0.00	0.00	0.00	1.39	Total including natural	4.95	4.03	Note 51

N CHAIN STARTING WITH	N FERTILIZER	TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	LOW N CROP	Note 43
AND CONTINUING WITH	GREEN MANURE LOW N	TO PRODUCE	WINTER WHEAT FOR	CATTLE DAIRY	Note 43

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
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	28.1	28.1	Note 45
ACCORDING TO	IPCC 1996 / IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	26.7	26.6	Note 45
FIRST YEAR	0.0185 / 0.0131	TOTAL N AMOUNTS IN KG AND % LEACHED	45.5	45.3	Note 45
TOTAL	0.0421 / 0.0289	TOTAL N AMOUNTS IN KG AND %	100.3	100.0	Note 45

Total	N																				2.21	3.61	1.87	2.48 Note 45
Year	N NH3																				0.27		0.27	Note 45
1-10	N leach																				1.14		0.34	Note 45
N2O-N/N in food/beverage/fuel/other																						0.1284		0.0881 Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	72	0.0	0.0	71.3	0.0	14.5	72	71.3	1.26	1.58	1.02	1.13 Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	N crop	0.84				0.0	Green	0.0	0.02	0.0125	0.02	0.0100 Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	low N	72				3.0	Low	0.0	0.30	0.0000	0.09	0.0000 Note 49
Year	N	72	1	71.3	71.3	0	100	11	0	1	53.5	21	18.3	4.3	0.0	0.0	5.9	21	14.0	0.75	1.67	0.67	1.08 Note 47
2	Vol/NH3	Green	YES	0.0	17.8	NON	100.00	WWH	1.000	YES	29.2	Cattle	0.67				0.0	Cattle	1.1	0.19	0.0125	0.19	0.0100 Note 48
	N leach	Low	0.533	1.000		ORG	1.00	1.000	0.657	5.9	29.2	Dairy	2				5.8	Liquid	0.0	0.73	0.0010	0.22	0.0050 Note 49
Year	N	21	1	13.1	12.8	0	100	11	0	1	9.6	21	5.8	1.4	0.0	0.0	1.1	21	4.4	0.14	0.25	0.13	0.19 Note 47
3	Vol/NH3	Cattle	YES	0.3	3.2	NON	100.00	WWH	1.000	YES	2.8	Cattle	0.67				0.0	Cattle	0.4	0.04	0.0125	0.04	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.400	1.1	2.8	Dairy	2				1.0	Liquid	0.0	0.07	0.0010	0.02	0.0050 Note 49
Year	N	21	1	4.1	4.0	0	100	1	0	1	3.0	21	1.7	0.4	0.0	0.0	0.3	21	1.3	0.04	0.08	0.04	0.06 Note 47
4	Vol/NH3	Cattle	YES	0.1	1.0	NON	100.00	SBA	1.000	YES	1.0	Cattle	0.65				0.0	Cattle	0.1	0.01	0.0125	0.01	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.443	0.3	1.0	Dairy	2				0.3	Liquid	0.0	0.02	0.0010	0.01	0.0050 Note 49
Year	N	21	1	1.2	1.2	0	100	10	0	1	0.9	21	0.5	0.1	0.0	0.0	0.1	21	0.4	0.01	0.02	0.01	0.02 Note 47
5	Vol/NH3	Cattle	YES	0.0	0.3	NON	100.00	WBA	1.000	YES	0.3	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.444	0.1	0.3	Dairy	2				0.1	Liquid	0.0	0.01	0.0010	0.00	0.0050 Note 49
Year	N	21	1	0.4	0.3	0	100	229	1	1	0.3	72	0.0	0.0	0.2	0.0	0.0	72	0.2	0.00	0.01	0.00	0.00 Note 47
6	Vol/NH3	Cattle	YES	0.0	0.1	NON	100.00	WRB	1.113	YES	0.0	N crop	0.84				0.0	Green	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.113	0.335	0.0	0.0	low N	72				0.0	Low	0.0	0.00	0.0000	0.00	0.0000 Note 49
Year	N	72	1	0.2	0.2	0	100	11	0	1	0.1	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00 Note 47
7	Vol/NH3	Green	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.1	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Low	0.533	1.000		ORG	1.00	1.000	0.657	0.0	0.1	Dairy	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	21	1	0.0	0.0	0	100	11	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00 Note 47
8	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.400	0.0	0.0	Dairy	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	21	1	0.0	0.0	0	100	1	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00 Note 47
9	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.443	0.0	0.0	Dairy	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49
Year	N	21	1	0.0	0.0	0	100	10	0	1	0.0	21	0.0	0.0	0.0	0.0	0.0	21	0.0	0.00	0.00	0.00	0.00 Note 47
10	Vol/NH3	Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66				0.0	Cattle	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach	Liquid	0.933	1.016		ORG	1.00	1.000	0.444	0.0	0.0	Dairy	2				0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050 Note 49

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total	Total/year 1	
Area with crop, ha	0.77	0.24	0.07	0.03	0.01	0.00	0.00	0.00	0.00	0.00	1.12	1.46	Note 50

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	3.61	2.48	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	3.61	2.48	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.24	0.07	0.03	0.01	0.00	0.00	0.00	0.00	0.00	1.12	Total including natural	4.74	3.60	Note 51

N CHAIN STARTING WITH	N FERTILIZER	TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	FOOD	Note 43
AND CONTINUING WITH	NO MANURE	TO PRODUCE	NOTHING FOR	FOOD	Note 43

Year		Fertlizer/manure # Name	Store 1/0	Amounts Store	Field	Or-ganic 1/0	Nnorm propor tion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996 Each	Total	N2O-N emission IPCC 2006 Each	Total	Note 44
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	8	0.0	0.0	0.0	71.3	14.5	0	0.0	1.26	1.58	1.02	1.13	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Food/	0.84				0.0	NONE	0.0	0.02	0.0125	0.02	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	beverage	8				3.0		0.0	0.30	0.0000	0.09	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	8	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
2	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Food/	0.67				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	beverage	8				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	8	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
3	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Food/	0.67				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	beverage	8				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	1	0	1	0.0	8	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
4	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Food/	0.65				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.403	0.0	0.0	beverage	8				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	10	0	1	0.0	8	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
5	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Food/	0.66				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.404	0.0	0.0	beverage	8				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	229	1	1	0.0	8	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.113	YES	0.0	Food/	0.84				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.113	0.287	0.0	0.0	beverage	8				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	8	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Food/	0.67				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	beverage	8				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	8	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Food/	0.67				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	beverage	8				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	1	0	1	0.0	8	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Food/	0.65				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.403	0.0	0.0	beverage	8				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	10	0	1	0.0	8	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Food/	0.66				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.404	0.0	0.0	beverage	8				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49

Total	N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	85.8	85.8	1.26	1.58	1.02	1.13 Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.2	2.2	0.02		0.02	Note 45
1-10	N leach	FIRST YEAR	0.0185	0.0131	TOTAL N AMOUNTS IN KG AND % LEACHED	12.0	12.0	0.30		0.09	Note 45
		TOTAL	0.0185	0.0131	TOTAL N AMOUNTS IN KG AND %	100.0	100.0				Note 45

N2O-N/N in food/beverage/fuel/other 0.0185 0.0131 Note 46

Year	Value	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total	Total/year 1		
Area with crop, ha		0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	1.00		Note 50
Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O	Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	1.58 / 1.13	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	1.58 / 1.13	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	Total including natural	2.35 / 1.90	Note 51

N CHAIN STARTING WITH	N FERTILIZER	TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	FUEL	Note 43
AND CONTINUING WITH	NO MANURE	TO PRODUCE	NOTHING FOR	FUEL	Note 43

Year	Fertlizer/manure # Name	Store 1/0	Amounts Store	Amounts Field	Organic 1/0	Nnorm proportion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Fodder: Uses #21-61 Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N amounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 1996 Total	N2O-N emission IPCC 2006 Each	N2O-N emission IPCC 2006 Total	Note 44 Note 44 Note 44
Total	N																						Note 45
Year	N NH3																						Note 45
1-10	N leach																						Note 45
																							Note 45
N2O-N/N in food/beverage/fuel/other																				0.0185		0.0131	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	9	0.0	0.0	0.0	0.0	85.8	0	0.0	1.26	1.58	1.02	1.13 Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Fuel/	0.84				0.0	NONE	0.0	0.02	0.0125	0.02	0.0100 Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	other	9				3.0		0.0	0.30	0.0000	0.09	0.0000 Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	9	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00 Note 47
2	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Fuel/	0.67				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	other	9				0.0		0.0	0.00	0.0000	0.00	0.0000 Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	9	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00 Note 47
3	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Fuel/	0.67				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	other	9				0.0		0.0	0.00	0.0000	0.00	0.0000 Note 49
Year	N	0	1	0.0	0.0	0	100	1	0	1	0.0	9	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00 Note 47
4	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Fuel/	0.65				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.403	0.0	0.0	other	9				0.0		0.0	0.00	0.0000	0.00	0.0000 Note 49
Year	N	0	1	0.0	0.0	0	100	10	0	1	0.0	9	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00 Note 47
5	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Fuel/	0.66				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.404	0.0	0.0	other	9				0.0		0.0	0.00	0.0000	0.00	0.0000 Note 49
Year	N	0	1	0.0	0.0	0	100	229	1	1	0.0	9	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00 Note 47
6	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.113	YES	0.0	Fuel/	0.84				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach		1.000	1.000		ORG	1.00	1.113	0.287	0.0	0.0	other	9				0.0		0.0	0.00	0.0000	0.00	0.0000 Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	9	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00 Note 47
7	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Fuel/	0.67				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	other	9				0.0		0.0	0.00	0.0000	0.00	0.0000 Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	9	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00 Note 47
8	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Fuel/	0.67				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	other	9				0.0		0.0	0.00	0.0000	0.00	0.0000 Note 49
Year	N	0	1	0.0	0.0	0	100	1	0	1	0.0	9	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00 Note 47
9	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Fuel/	0.65				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.403	0.0	0.0	other	9				0.0		0.0	0.00	0.0000	0.00	0.0000 Note 49
Year	N	0	1	0.0	0.0	0	100	10	0	1	0.0	9	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00 Note 47
10	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Fuel/	0.66				0.0	NONE	0.0	0.00	0.0125	0.00	0.0100 Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.404	0.0	0.0	other	9				0.0		0.0	0.00	0.0000	0.00	0.0000 Note 49

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total	Total/year 1	
Area with crop, ha	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	1.00	Note 50

Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	1.58	1.13	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	1.58	1.13	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	Total including natural	2.35	1.90	Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE WINTER RAPESEED FOR PPO/BIODIESEL AND WASTE DUMPED ELSEWHERE WITHOUT LEACHING Note 43
AND CONTINUING WITH NO MANURE TO PRODUCE NOTHING FOR WASTE, DUMPED ELSEWHERE Note 43

Year		Fertlizer/manure # Name	Store 1/0	Amounts Store	Field	Or-ganic 1/0	Nnorm propor tion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996 Each	Total	N2O-N emission IPCC 2006 Each	Total	Note 44
Total	N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED						85.8	85.8	1.26	1.58	1.02	1.13	Note 45
Year	N NH3	ACCORDING TO				IPCC 1996		IPCC 2006				TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3						2.2	2.2	0.02		0.02		Note 45
1-10	N leach	FIRST YEAR				0.0185		0.0131				TOTAL N AMOUNTS IN KG AND % LEACHED						12.0	12.0	0.30		0.09		Note 45
		TOTAL				0.0185		0.0131				TOTAL N AMOUNTS IN KG AND %						100.0	100.0					Note 45
N2O-N/N in food/beverage/fuel/other																					0.1093		0.0779	Note 46
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	-1	0.0	0.0	0.0	0.0	14.5	0	0.0	1.26	1.58	1.02	1.13	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Waste	0.84				0.0	None	0.0	0.02	0.0125	0.02	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	moved	0				3.0		0.0	0.30	0.0000	0.09	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
2	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.67				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	moved	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
3	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.67				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	moved	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	1	0	1	0.0	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
4	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.65				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.403	0.0	0.0	moved	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	10	0	1	0.0	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
5	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.66				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.404	0.0	0.0	moved	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	229	1	1	0.0	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.113	YES	0.0	Waste	0.84				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.113	0.287	0.0	0.0	moved	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.67				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	moved	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.67				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	moved	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	1	0	1	0.0	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.65				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.403	0.0	0.0	moved	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	10	0	1	0.0	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.66				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.404	0.0	0.0	moved	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49

Year	Value	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total	Total/year 1			
Area with crop, ha		0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	1.00			Note 50
Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	1.58	1.13	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	1.58	1.13	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	Total including natural	2.35	1.90	Note 51

N CHAIN STARTING WITH	N FERTILIZER	TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	WASTE DUMPED IN FIELD AND LOST TO LEACH	Note 43
AND CONTINUING WITH	NO MANURE	TO PRODUCE	NOTHING FOR	WASTE DUMPED IN FIELD	Note 43

Year												
Total	N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	14.5	14.5	1.26	3.36	1.02	1.66	Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.2	2.2	0.02		0.02		Note 45
1-10	N leach	FIRST YEAR	0.0392	0.0194	TOTAL N AMOUNTS IN KG AND % LEACHED	83.3	83.3	2.08		0.62		Note 45
		TOTAL	0.0392	0.0194	TOTAL N AMOUNTS IN KG AND %	100.0	100.0					Note 45
N2O-N/N in food/beverage/fuel/other									0.2324		0.1148	Note 46

Year		Fertlizer/manure # Name	Store 1/0	Amounts Store	Field	Or-ganic 1/0	Nnorm propor tion, %	Crop # Name	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use # Name	Fodder: Uses #21-61 Fed	Food	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996 Each	Total	N2O-N emission IPCC 2006 Each	Total	Note 44
Year	N	1	1	100.0	100.0	0	100	229	1	1	97.8	0	0.0	0.0	0.0	0.0	14.5	0	71.3	1.26	3.36	1.02	1.66	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WRB	1.113	YES	12.0	Waste	0.84				0.0	None	0.0	0.02	0.0125	0.02	0.0100	Note 48
	N leach		1.022	1.000		ORG	1.00	1.113	0.271	14.5	12.0	in field	0				3.0		71.3	2.08	0.0000	0.62	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
2	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.67				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	in field	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
3	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.67				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	in field	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	1	0	1	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
4	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.65				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.403	0.0	0.0	in field	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	10	0	1	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
5	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.66				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.404	0.0	0.0	in field	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	229	1	1	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
6	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.113	YES	0.0	Waste	0.84				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.113	0.287	0.0	0.0	in field	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
7	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.67				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	in field	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	11	0	1	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
8	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.67				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.357	0.0	0.0	in field	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	1	0	1	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
9	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.65				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.403	0.0	0.0	in field	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49
Year	N	0	1	0.0	0.0	0	100	10	0	1	0.0	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	0.00	Note 47
10	Vol/NH3	None	YES	0.0	0.0	NON	100.00	NO	1.000	YES	0.0	Waste	0.66				0.0	None	0.0	0.00	0.0125	0.00	0.0100	Note 48
	N leach		1.000	1.000		ORG	1.00	1.000	0.404	0.0	0.0	in field	0				0.0		0.0	0.00	0.0000	0.00	0.0000	Note 49

Year	Value	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year10	Total	Total/year 1			
Area with crop, ha		0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	1.00			Note 50
Possible additional non IPCC N2O-N emissions	Value												Kind of source	Total IPCC and non IPCC N2O		Note 51
N residues emissions, ratio of N2O-N to N:	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Current crops	3.36	1.66	Note 51
Increased soil N emissions, kg N2O-N/ha:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Total anthropogenic	3.36	1.66	Note 51
Natural background emissions, kg N2O-N/ha:	1.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	Total including natural	4.14	2.43	Note 51

SUMMARY CATTLE DAIRY

N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	CATTLE DAIRY						Note 43
AND CONTINUING WITH	LIQUID CATTLE MANURE			TO PRODUCE	WINTER WHEAT FOR	CATTLE DAIRY						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		48.13	47.62	2.02	2.95	1.92	2.38	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		26.26	25.98	0.26		0.26		Note 45
1-10 N leach	FIRST YEAR	0.0195	0.0163	TOTAL N AMOUNTS IN KG AND % LEACHED		26.68	26.40	0.67		0.20		Note 45
	TOTAL	0.0344	0.0278	TOTAL N AMOUNTS IN KG AND %		101.08	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0613		0.0495	Note 46
							Total/year 1					
Area with crop, ha						1.17	1.52					Note 50
Natural background emissions, kg N2O-N/ha:						1.17			4.12		3.55	Note 51
N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	CATTLE DAIRY						Note 43
AND CONTINUING WITH	SEPARATED CATTLE MANURE			TO PRODUCE	WINTER WHEAT FOR	CATTLE DAIRY						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		46.70	46.21	2.60	3.55	1.87	2.35	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		26.85	26.57	0.27		0.27		Note 45
1-10 N leach	FIRST YEAR	0.0246	0.0162	TOTAL N AMOUNTS IN KG AND % LEACHED		27.51	27.23	0.69		0.21		Note 45
	TOTAL	0.0414	0.0274	TOTAL N AMOUNTS IN KG AND %		101.06	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0761		0.0502	Note 46
							Total/year 1					
Area with crop, ha						1.11	1.44					Note 50
Natural background emissions, kg N2O-N/ha:						1.11			4.66		3.46	Note 51
N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	CATTLE DAIRY						Note 43
AND CONTINUING WITH	CATTLE DEEP LITTER			TO PRODUCE	WINTER WHEAT FOR	CATTLE DAIRY						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		42.48	38.96	2.87	3.98	1.69	2.28	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		37.09	34.02	0.37		0.37		Note 45
1-10 N leach	FIRST YEAR	0.0298	0.0163	TOTAL N AMOUNTS IN KG AND % LEACHED		29.46	27.02	0.74		0.22		Note 45
	TOTAL	0.0464	0.0266	TOTAL N AMOUNTS IN KG AND %		109.03	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0937		0.0538	Note 46
							Total/year 1					
Area with crop, ha						0.95	1.22					Note 50
Natural background emissions, kg N2O-N/ha:						0.95			4.93		3.23	Note 51
N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	CATTLE DAIRY						Note 43
AND CONTINUING WITH	MANURE FROM GRAZING CATTLE			TO PRODUCE	WINTER WHEAT FOR	CATTLE DAIRY						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		46.54	46.54	3.38	4.61	2.98	3.40	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		6.71	6.71	0.07		0.07		Note 45
1-10 N leach	FIRST YEAR	0.0302	0.0249	TOTAL N AMOUNTS IN KG AND % LEACHED		46.75	46.75	1.17		0.35		Note 45
	TOTAL	0.0538	0.0397	TOTAL N AMOUNTS IN KG AND %		100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0992		0.0731	Note 46
							Total/year 1					
Area with crop, ha						0.97	1.25					Note 50
Natural background emissions, kg N2O-N/ha:						0.97			5.58		4.37	Note 51

SUMMARY CATTLE BEEF

N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	CATTLE BEEF						Note 43
AND CONTINUING WITH	LIQUID CATTLE MANURE			TO PRODUCE	WINTER WHEAT FOR	CATTLE BEEF						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		45.60	45.08	2.07	3.04	1.98	2.47	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		27.87	27.56	0.28		0.28		Note 45
1-10 N leach	FIRST YEAR	0.0195	0.0165	TOTAL N AMOUNTS IN KG AND % LEACHED		27.67	27.36	0.69		0.21		Note 45
	TOTAL	0.0355	0.0287	TOTAL N AMOUNTS IN KG AND %		101.15	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0667		0.0541	Note 46
							Total/year 1					
Area with crop, ha						1.20	1.55					Note 50
Natural background emissions, kg N2O-N/ha:						1.20			4.24		3.66	Note 51
N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	CATTLE BEEF						Note 43
AND CONTINUING WITH	SEPARATED CATTLE MANURE			TO PRODUCE	WINTER WHEAT FOR	CATTLE BEEF						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		44.17	43.68	2.68	3.68	1.93	2.42	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		28.44	28.12	0.28		0.28		Note 45
1-10 N leach	FIRST YEAR	0.0249	0.0164	TOTAL N AMOUNTS IN KG AND % LEACHED		28.52	28.20	0.71		0.21		Note 45
	TOTAL	0.0429	0.0283	TOTAL N AMOUNTS IN KG AND %		101.13	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0833		0.0549	Note 46
							Total/year 1					
Area with crop, ha						1.13	1.47					Note 50
Natural background emissions, kg N2O-N/ha:						0.95			4.81		3.56	Note 51
N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	CATTLE BEEF						Note 43
AND CONTINUING WITH	CATTLE DEEP LITTER			TO PRODUCE	WINTER WHEAT FOR	CATTLE BEEF						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		40.00	36.51	2.97	4.12	1.73	2.35	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		39.09	35.68	0.39		0.39		Note 45
1-10 N leach	FIRST YEAR	0.0304	0.0164	TOTAL N AMOUNTS IN KG AND % LEACHED		30.46	27.81	0.76		0.23		Note 45
	TOTAL	0.0480	0.0274	TOTAL N AMOUNTS IN KG AND %		109.55	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.1030		0.0587	Note 46
							Total/year 1					
Area with crop, ha						0.96	1.24					Note 50
Natural background emissions, kg N2O-N/ha:						0.96			5.07		3.30	Note 51
N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	CATTLE BEEF						Note 43
AND CONTINUING WITH	MANURE FROM GRAZING CATTLE			TO PRODUCE	WINTER WHEAT FOR	CATTLE BEEF						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		44.17	44.17	3.51	4.80	3.10	3.54	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		6.98	6.98	0.07		0.07		Note 45
1-10 N leach	FIRST YEAR	0.0307	0.0254	TOTAL N AMOUNTS IN KG AND % LEACHED		48.85	48.85	1.22		0.37		Note 45
	TOTAL	0.0559	0.0413	TOTAL N AMOUNTS IN KG AND %		100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.1086		0.0801	Note 46
							Total/year 1					
Area with crop, ha						0.98	1.27					Note 50
Natural background emissions, kg N2O-N/ha:						0.98			5.78		4.52	Note 51

SUMMARY PIG PORK

N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	PIG PORK						Note 43
AND CONTINUING WITH	LIQUID PIG MANURE			TO PRODUCE	WINTER WHEAT FOR	PIG PORK						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		57.15	57.15	1.78	2.51	1.63	2.01	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		22.37	22.37	0.22		0.22		Note 45
1-10 N leach	FIRST YEAR	0.0195	0.0159	TOTAL N AMOUNTS IN KG AND % LEACHED		20.48	20.48	0.51		0.15		Note 45
	TOTAL	0.0293	0.0234	TOTAL N AMOUNTS IN KG AND %		100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0440		0.0352	Note 46
							Total/year 1					
Area with crop, ha						1.06	1.37					Note 50
Natural background emissions, kg N2O-N/ha:						1.06			3.57		3.07	Note 51

N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	PIG PORK						Note 43
AND CONTINUING WITH	SEPARATED PIG MANURE			TO PRODUCE	WINTER WHEAT FOR	PIG PORK						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		52.67	52.16	2.02	2.81	1.50	1.93	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		28.12	27.85	0.28		0.28		Note 45
1-10 N leach	FIRST YEAR	0.0235	0.0160	TOTAL N AMOUNTS IN KG AND % LEACHED		20.18	19.99	0.50		0.15		Note 45
	TOTAL	0.0328	0.0225	TOTAL N AMOUNTS IN KG AND %		100.97	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0533		0.0366	Note 46
							Total/year 1					
Area with crop, ha						0.95	1.23					Note 50
Natural background emissions, kg N2O-N/ha:						0.95			3.76		2.88	Note 51

N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	PIG PORK						Note 43
AND CONTINUING WITH	PIG DEEP LITTER			TO PRODUCE	WINTER WHEAT FOR	PIG PORK						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		50.46	48.28	2.22	3.03	1.40	1.89	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		36.03	34.47	0.36		0.36		Note 45
1-10 N leach	FIRST YEAR	0.0269	0.0162	TOTAL N AMOUNTS IN KG AND % LEACHED		18.02	17.24	0.45		0.14		Note 45
	TOTAL	0.0353	0.0221	TOTAL N AMOUNTS IN KG AND %		104.51	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0600		0.0375	Note 46
							Total/year 1					
Area with crop, ha						0.90	1.17					Note 50
Natural background emissions, kg N2O-N/ha:						0.90			3.93		2.79	Note 51

N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	PIG PORK						Note 43
AND CONTINUING WITH	MANURE FROM ROOTING PIGS			TO PRODUCE	WINTER WHEAT FOR	PIG PORK						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		59.45	59.45	3.06	3.98	2.69	3.01	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		6.03	6.03	0.06		0.06		Note 45
1-10 N leach	FIRST YEAR	0.0281	0.0228	TOTAL N AMOUNTS IN KG AND % LEACHED		34.52	34.52	0.86		0.26		Note 45
	TOTAL	0.0464	0.0351	TOTAL N AMOUNTS IN KG AND %		100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0670		0.0506	Note 46
							Total/year 1					
Area with crop, ha						1.01	1.31					Note 50
Natural background emissions, kg N2O-N/ha:						1.01			5.00		4.02	Note 51

SUMMARY POULTRY MEAT

N CHAIN STARTING WITH		N FERTILIZER		TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	POULTRY MEAT						Note 43
AND CONTINUING WITH		LIQUID POULTRY MANURE		TO PRODUCE	WINTER WHEAT FOR	POULTRY MEAT						Note 43
Total	N	RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		61.95	61.95	1.69	2.39	1.53	1.85	Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	16.62	16.62	0.17		0.17		Note 45
1-10	N leach	FIRST YEAR	0.0192	0.0154	TOTAL N AMOUNTS IN KG AND % LEACHED	21.43	21.43	0.54		0.16		Note 45
		TOTAL	0.0279	0.0216	TOTAL N AMOUNTS IN KG AND %	100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0386		0.0299	Note 46
							Total/year 1					
Area with crop, ha						0.98	1.27					Note 50
Natural background emissions, kg N2O-N/ha:						0.98			3.37		2.83	Note 51
N CHAIN STARTING WITH		N FERTILIZER		TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	POULTRY MEAT						Note 43
AND CONTINUING WITH		SEPARATED POULTRY MANURE		TO PRODUCE	WINTER WHEAT FOR	POULTRY MEAT						Note 43
Total	N	RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		58.41	58.41	1.84	2.53	1.38	1.75	Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	23.16	23.16	0.23		0.23		Note 45
1-10	N leach	FIRST YEAR	0.0227	0.0157	TOTAL N AMOUNTS IN KG AND % LEACHED	18.42	18.42	0.46		0.14		Note 45
		TOTAL	0.0295	0.0204	TOTAL N AMOUNTS IN KG AND %	100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0434		0.0300	Note 46
							Total/year 1					
Area with crop, ha						0.91	1.18					Note 50
Natural background emissions, kg N2O-N/ha:						0.91			3.44		2.66	Note 51
N CHAIN STARTING WITH		N FERTILIZER		TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	POULTRY MEAT						Note 43
AND CONTINUING WITH		POULTRY DEEP LITTER		TO PRODUCE	WINTER WHEAT FOR	POULTRY MEAT						Note 43
Total	N	RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		55.18	55.02	1.91	2.65	1.29	1.69	Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	25.96	25.88	0.26		0.26		Note 45
1-10	N leach	FIRST YEAR	0.0250	0.0160	TOTAL N AMOUNTS IN KG AND % LEACHED	19.16	19.10	0.48		0.14		Note 45
		TOTAL	0.0308	0.0197	TOTAL N AMOUNTS IN KG AND %	100.29	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0479		0.0307	Note 46
							Total/year 1					
Area with crop, ha						0.84	1.09					Note 50
Natural background emissions, kg N2O-N/ha:						0.84			3.49		2.53	Note 51
N CHAIN STARTING WITH		N FERTILIZER		TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	POULTRY MEAT						Note 43
AND CONTINUING WITH		MANURE FROM SCRAPING POULTRY		TO PRODUCE	WINTER WHEAT FOR	POULTRY MEAT						Note 43
Total	N	RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		61.02	61.02	2.60	3.50	2.26	2.56	Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	5.05	5.05	0.05		0.05		Note 45
1-10	N leach	FIRST YEAR	0.0266	0.0213	TOTAL N AMOUNTS IN KG AND % LEACHED	33.93	33.93	0.85		0.25		Note 45
		TOTAL	0.0408	0.0299	TOTAL N AMOUNTS IN KG AND %	100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0573		0.0420	Note 46
Area with crop, ha		Total/year 1				0.90	1.16					Note 50
Natural background emissions, kg N2O-N/ha:						0.90			4.39		3.46	Note 51

SUMMARY POULTRY EGGS

N CHAIN STARTING WITH		N FERTILIZER		TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	POULTRY EGGS						Note 43
AND CONTINUING WITH		LIQUID POULTRY MANURE		TO PRODUCE	WINTER WHEAT FOR	POULTRY EGGS						Note 43
Total	N	RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		43.79	43.79	2.01	3.00	1.91	2.41	Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	27.58	27.58	0.28		0.28		Note 45
1-10	N leach	FIRST YEAR	0.0196	0.0166	TOTAL N AMOUNTS IN KG AND % LEACHED	28.62	28.62	0.72		0.21		Note 45
		TOTAL	0.0350	0.0280	TOTAL N AMOUNTS IN KG AND %	100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0686		0.0549	Note 46
							Total/year 1					
Area with crop, ha						1.14	1.47					Note 50
Natural background emissions, kg N2O-N/ha:						1.14			4.14		3.54	Note 51
N CHAIN STARTING WITH		N FERTILIZER		TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	POULTRY EGGS						Note 43
AND CONTINUING WITH		SEPARATED POULTRY MANURE		TO PRODUCE	WINTER WHEAT FOR	POULTRY EGGS						Note 43
Total	N	RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		39.59	39.59	2.24	3.19	1.64	2.18	Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	37.57	37.57	0.38		0.38		Note 45
1-10	N leach	FIRST YEAR	0.0250	0.0171	TOTAL N AMOUNTS IN KG AND % LEACHED	22.84	22.84	0.57		0.17		Note 45
		TOTAL	0.0372	0.0255	TOTAL N AMOUNTS IN KG AND %	100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0805		0.0552	Note 46
							Total/year 1					
Area with crop, ha						1.01	1.31					Note 50
Natural background emissions, kg N2O-N/ha:						1.01			4.20		3.19	Note 51
N CHAIN STARTING WITH		N FERTILIZER		TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	POULTRY EGGS						Note 43
AND CONTINUING WITH		POULTRY DEEP LITTER		TO PRODUCE	WINTER WHEAT FOR	POULTRY EGGS						Note 43
Total	N	RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		36.31	36.14	2.31	3.30	1.46	2.04	Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	40.61	40.42	0.41		0.41		Note 45
1-10	N leach	FIRST YEAR	0.0285	0.0176	TOTAL N AMOUNTS IN KG AND % LEACHED	23.55	23.44	0.59		0.18		Note 45
		TOTAL	0.0385	0.0238	TOTAL N AMOUNTS IN KG AND %	100.47	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0909		0.0562	Note 46
							Total/year 1					
Area with crop, ha						0.89	1.15					Note 50
Natural background emissions, kg N2O-N/ha:						0.89			4.19		2.93	Note 51
N CHAIN STARTING WITH		N FERTILIZER		TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	POULTRY EGGS						Note 43
AND CONTINUING WITH		MANURE FROM SCRAPING POULTRY		TO PRODUCE	WINTER WHEAT FOR	POULTRY EGGS						Note 43
Total	N	RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		43.61	43.61	3.54	4.84	3.13	3.57	Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	7.05	7.05	0.07		0.07		Note 45
1-10	N leach	FIRST YEAR	0.0311	0.0258	TOTAL N AMOUNTS IN KG AND % LEACHED	49.34	49.34	1.23		0.37		Note 45
		TOTAL	0.0564	0.0416	TOTAL N AMOUNTS IN KG AND %	100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.1110		0.0819	Note 46
							Total/year 1					
Area with crop, ha						0.98	1.27					Note 50
Natural background emissions, kg N2O-N/ha:						0.98			5.82		4.55	Note 51

SUMMARY SHEEP AND GOATS

N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	SHEEP MILK/MUTTON						Note 43
AND CONTINUING WITH	SHEEP DEEP LITTER			TO PRODUCE	WINTER WHEAT FOR	SHEEP MILK/MUTTON						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		39.43	35.05	4.04	5.63	2.41	3.00	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		15.79	14.04	0.16		0.16		Note 45
1-10 N leach	FIRST YEAR	0.0316	0.0172	TOTAL N AMOUNTS IN KG AND % LEACHED		57.26	50.91	1.43		0.43		Note 45
	TOTAL	0.0656	0.0350	TOTAL N AMOUNTS IN KG AND %		112.47	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.1427		0.0761	Note 46
							Total/year 1					
Area with crop, ha						1.11	1.44					Note 50
Natural background emissions, kg N2O-N/ha:						1.11			6.74		4.12	Note 51
N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	SHEEP MILK/MUTTON						Note 43
AND CONTINUING WITH	MANURE FROM GRAZING SHEEP			TO PRODUCE	WINTER WHEAT FOR	SHEEP MILK/MUTTON						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		36.31	36.31	3.93	5.40	1.87	2.37	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		7.89	7.89	0.08		0.08		Note 45
1-10 N leach	FIRST YEAR	0.0327	0.0131	TOTAL N AMOUNTS IN KG AND % LEACHED		55.81	55.81	1.40		0.42		Note 45
	TOTAL	0.0630	0.0276	TOTAL N AMOUNTS IN KG AND %		100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.1489		0.0653	Note 46
							Total/year 1					
Area with crop, ha						1.02	1.32					Note 50
Natural background emissions, kg N2O-N/ha:						1.02			6.42		3.39	Note 51
N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	GOAT MILK/MEAT						Note 43
AND CONTINUING WITH	GOAT DEEP LITTER			TO PRODUCE	WINTER WHEAT FOR	GOAT MILK/MEAT						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		29.00	26.04	3.38	4.78	1.95	2.68	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		44.11	39.61	0.44		0.44		Note 45
1-10 N leach	FIRST YEAR	0.0324	0.0175	TOTAL N AMOUNTS IN KG AND % LEACHED		38.25	34.35	0.96		0.29		Note 45
	TOTAL	0.0557	0.0313	TOTAL N AMOUNTS IN KG AND %		111.36	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.1648		0.0925	Note 46
							Total/year 1					
Area with crop, ha						1.03	1.34					Note 50
Natural background emissions, kg N2O-N/ha:						1.03			5.81		3.72	Note 51
N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	GOAT MILK/MEAT						Note 43
AND CONTINUING WITH	MANURE FROM GRAZING GOATS			TO PRODUCE	WINTER WHEAT FOR	GOAT MILK/MEAT						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		32.72	32.72	4.12	5.68	2.80	3.33	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		8.30	8.30	0.08		0.08		Note 45
1-10 N leach	FIRST YEAR	0.0335	0.0207	TOTAL N AMOUNTS IN KG AND % LEACHED		58.98	58.98	1.47		0.44		Note 45
	TOTAL	0.0662	0.0388	TOTAL N AMOUNTS IN KG AND %		100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.1736		0.1018	Note 46
							Total/year 1					
Area with crop, ha						1.04	1.35					Note 50
Natural background emissions, kg N2O-N/ha:						1.04			6.72		4.37	Note 51

SUMMARY N CROP

N CHAIN STARTING WITH		N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	HIGH N CROP						Note 43
AND CONTINUING WITH		GREEN MANURE HIGH N			TO PRODUCE	WINTER WHEAT FOR	CATTLE DAIRY						Note 43
Total	N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		33.99	33.81	2.37	3.56	2.06	2.64	Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		31.72	31.56	0.32		0.32		Note 45
1-10	N leach	FIRST YEAR	0.0185	0.0131	TOTAL N AMOUNTS IN KG AND % LEACHED		34.81	34.63	0.87		0.26		Note 45
		TOTAL	0.0415	0.0308	TOTAL N AMOUNTS IN KG AND %		100.52	100.00					Note 45
N2O-N/N in food/beverage/fuel/other										0.1047		0.0776	Note 46
								Total/year 1					
Area with crop, ha							1.39	1.80					Note 50
Natural background emissions, kg N2O-N/ha:							1.39			4.95		4.03	Note 51

N amount in reference crop year 2 after use of N crop as green manure, kg	32.07	Note 47
N amount in reference crop year 1 after synthetic N fertilizer, kg	71.29	Note 47
Relative value of green manure, %	44.99	

N CHAIN STARTING WITH		N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	LOW N CROP						Note 43
AND CONTINUING WITH		GREEN MANURE LOW N			TO PRODUCE	WINTER WHEAT FOR	CATTLE DAIRY						Note 43
Total	N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		28.14	28.06	2.21	3.61	1.87	2.48	Note 45
Year	N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		26.70	26.62	0.27		0.27		Note 45
1-10	N leach	FIRST YEAR	0.0185	0.0131	TOTAL N AMOUNTS IN KG AND % LEACHED		45.46	45.32	1.14		0.34		Note 45
		TOTAL	0.0421	0.0289	TOTAL N AMOUNTS IN KG AND %		100.30	100.00					Note 45
N2O-N/N in food/beverage/fuel/other										0.1284		0.0881	Note 46
								Total/year 1					
Area with crop, ha							1.12	1.46					Note 50
Natural background emissions, kg N2O-N/ha:							1.12			4.74		3.60	Note 51

N amount in reference crop year 2 after use of N crop as green manure, kg	18.33	Note 47
N amount in reference crop year 1 after synthetic N fertilizer, kg	71.29	Note 47
Relative value of green manure, %	25.71	

SUMMARY FOOD, FUEL, AND WASTE

N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	FOOD						Note 43
AND CONTINUING WITH	NO MANURE			TO PRODUCE	NOTHING FOR	FOOD						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		85.77	85.77	1.26	1.58	1.02	1.13	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		2.20	2.20	0.02		0.02		Note 45
1-10 N leach	FIRST YEAR	0.0185	0.0131	TOTAL N AMOUNTS IN KG AND % LEACHED		12.03	12.03	0.30		0.09		Note 45
	TOTAL	0.0185	0.0131	TOTAL N AMOUNTS IN KG AND %		100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0185		0.0131	Note 46
							Total/year 1					
Area with crop, ha						0.77	1.00					Note 50
Natural background emissions, kg N2O-N/ha:						0.77			2.35		1.90	Note 51

N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	FUEL						Note 43
AND CONTINUING WITH	NO MANURE			TO PRODUCE	NOTHING FOR	FUEL						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		85.77	85.77	1.26	1.58	1.02	1.13	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		2.20	2.20	0.02		0.02		Note 45
1-10 N leach	FIRST YEAR	0.0185	0.0131	TOTAL N AMOUNTS IN KG AND % LEACHED		12.03	12.03	0.30		0.09		Note 45
	TOTAL	0.0185	0.0131	TOTAL N AMOUNTS IN KG AND %		100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.0185		0.0131	Note 46
							Total/year 1					
Area with crop, ha						0.77	1.00					Note 50
Natural background emissions, kg N2O-N/ha:						0.77			2.35		1.90	Note 51

N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	WASTE DUMPED ELSEWHERE WITHOUT LEACHING						Note 43
AND CONTINUING WITH	NO MANURE			TO PRODUCE	NOTHING FOR	WASTE, DUMPED ELSEWHERE						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		85.77	85.77	1.26	1.58	1.02	1.13	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		2.20	2.20	0.02		0.02		Note 45
1-10 N leach	FIRST YEAR	0.0185	0.0131	TOTAL N AMOUNTS IN KG AND % LEACHED		12.03	12.03	0.30		0.09		Note 45
	TOTAL	0.0185	0.0131	TOTAL N AMOUNTS IN KG AND %		100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.1093		0.0779	Note 46
							Total/year 1					
Area with crop, ha						0.77	1.00					Note 50
Natural background emissions, kg N2O-N/ha:						0.77			2.35		1.90	Note 51

N CHAIN STARTING WITH	N FERTILIZER			TO PRODUCE	WINTER RAPESEED FOR PPO/BIODIESEL AND	WASTE DUMPED IN FIELD AND LOST TO LEACH						Note 43
AND CONTINUING WITH	NO MANURE			TO PRODUCE	NOTHING FOR	WASTE DUMPED IN FIELD						Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP			TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		14.48	14.48	1.26	3.36	1.02	1.66	Note 45
Year N NH3	ACCORDING TO	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3		2.20	2.20	0.02		0.02		Note 45
1-10 N leach	FIRST YEAR	0.0392	0.0194	TOTAL N AMOUNTS IN KG AND % LEACHED		83.32	83.32	2.08		0.62		Note 45
	TOTAL	0.0392	0.0194	TOTAL N AMOUNTS IN KG AND %		100.00	100.00					Note 45
N2O-N/N in food/beverage/fuel/other									0.2324		0.1148	Note 46
							Total/year 1					
Area with crop, ha						0.77	1.00					Note 50
Natural background emissions, kg N2O-N/ha:						0.77			4.14		2.43	Note 51

SUMMARY CATTLE

RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO	IPCC 1996 MIN	IPCC 1996 MAX	IPCC 2006 MIN	IPCC 2006 MAX	N2O-N emission IPCC 1996 MIN	N2O-N emission IPCC 1996 MAX	N2O-N emission IPCC 2006 MIN	N2O-N emission IPCC 2006 MAX
FIRST YEAR	0.0195	0.0307	0.0162	0.0254	2.95	4.80	2.28	3.54
TOTAL	0.0344	0.0559	0.0266	0.0413				

	MIN	MAX	MIN	MAX
N2O-N/N in food/beverage/fuel/other	0.0613	0.1086	0.0495	0.0801

	MIN	MAX	MIN	MAX				
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:	0.95	1.20	0.95	1.27	4.12	5.78	3.23	4.52

SUMMARY PIGS

RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO	IPCC 1996 MIN	IPCC 1996 MAX	IPCC 2006 MIN	IPCC 2006 MAX	N2O-N emission IPCC 1996 MIN	N2O-N emission IPCC 1996 MAX	N2O-N emission IPCC 2006 MIN	N2O-N emission IPCC 2006 MAX
FIRST YEAR	0.0195	0.0281	0.0159	0.0228	2.51	3.98	1.89	3.01
TOTAL	0.0293	0.0464	0.0221	0.0351				

	MIN	MAX	MIN	MAX
N2O-N/N in food/beverage/fuel/other	0.0440	0.0670	0.0352	0.0506

	MIN	MAX	MIN	MAX				
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:	0.90	1.06	0.90	1.06	3.57	5.00	2.79	4.02

SUMMARY POULTRY

RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO	IPCC 1996 MIN	IPCC 1996 MAX	IPCC 2006 MIN	IPCC 2006 MAX	N2O-N emission IPCC 1996 MIN	N2O-N emission IPCC 1996 MAX	N2O-N emission IPCC 2006 MIN	N2O-N emission IPCC 2006 MAX
FIRST YEAR	0.0192	0.0311	0.0154	0.0258	2.39	4.84	1.69	3.57
TOTAL	0.0279	0.0564	0.0197	0.0416				

	MIN	MAX	MIN	MAX
N2O-N/N in food/beverage/fuel/other	0.0386	0.1110	0.0299	0.0819

	MIN	MAX	MIN	MAX				
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:	0.84	1.14	0.84	1.14	3.37	5.82	2.53	4.55

SUMMARY SHEEP AND GOATS

RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO	IPCC 1996 MIN	IPCC 1996 MAX	IPCC 2006 MIN	IPCC 2006 MAX	N2O-N emission IPCC 1996 MIN	N2O-N emission IPCC 1996 MAX	N2O-N emission IPCC 2006 MIN	N2O-N emission IPCC 2006 MAX
FIRST YEAR	0.0316	0.0335	0.0131	0.0207	4.78	5.68	2.37	3.33
TOTAL	0.0557	0.0662	0.0276	0.0388				

	MIN	MAX	MIN	MAX
N2O-N/N in food/beverage/fuel/other	0.1427	0.1736	0.0653	0.1018

	MIN	MAX	MIN	MAX				
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:	1.02	1.11	1.02	1.11	5.81	6.74	3.39	4.37

SUMMARY FODDER

RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO	IPCC 1996 MIN	IPCC 1996 MAX	IPCC 2006 MIN	IPCC 2006 MAX	N2O-N emission IPCC 1996 MIN	N2O-N emission IPCC 1996 MAX	N2O-N emission IPCC 2006 MIN	N2O-N emission IPCC 2006 MAX
FIRST YEAR	0.0192	0.0335	0.0131	0.0258	2.39	5.68	1.69	3.57
TOTAL	0.0279	0.0662	0.0197	0.0416				

	MIN	MAX	MIN	MAX
N2O-N/N in food/beverage/fuel/other	0.0386	0.1736	0.0299	0.1018

	MIN	MAX	MIN	MAX				
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:	0.84	1.20	0.84	1.27	3.37	6.74	2.53	4.55