

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

Year	Fertilizer/manure #	Store Name	Amounts 1/0	Field 1/0	Or-ganic 1/0	Nnorm propor-tion, %	Crop #	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use #	Fodder: Uses #21-61	N crop #71/	Food #72	Fuel/other #9	Manure handling #	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	
Total N	1	1	100.0	100.0	2.2 NON	100.0	119	0	1	97.8	21	64.3	19.0	0.0	10.8	21	45.3	2.04	3.18	1.93
Year N NH3	YES	YES	0.0	0.0	ORG	1.000	WWHB	1.000	YES	22.7	Cattle	0.84	0.0	0.0	0.0	Cattle	3.6	0.06	0.125	0.06
1-10 N leach	1.022	1.000	1.000	1.000	41.4	0	11	0	10.8	22.7	Dairy	2	10.6	0.0	10.6	Liquid	0.0	0.57	0.0010	0.17
Year 2	21	1	42.3	41.4	10.4 NON	100.00	WWH	1.000	YES	31.1	21	18.6	4.4	0.0	3.4	21	14.2	0.44	0.79	0.42
N leach	Cattle	YES	0.9	0.9	ORG	1.000	WWH	1.000	YES	9.0	Cattle	0.67	0.0	0.0	0.0	Cattle	1.1	0.12	0.0125	0.12
Year 3	21	1	13.3	13.0	3.3 NON	100.00	WWH	1.000	YES	9.8	21	5.9	1.4	0.0	1.1	21	4.5	0.22	0.0010	0.07
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	0.400	3.4	9.0	Dairy	2	0.0	0.0	3.4	Liquid	0.0	0.13	0.0010	0.13
Year 4	21	1	4.2	4.1	4.1	0	1	0	1	2.8	21	0.67	0.4	0.0	1.1	21	0.4	0.04	0.0125	0.04
N leach	Cattle	YES	0.1	1.0 NON	100.00	SBA	1.000	1.000	YES	3.1	Cattle	0.65	0.1	0.0	0.3	21	0.1	0.01	0.0125	0.01
Year 5	21	1	1.2	1.2	0.3 NON	100.00	WBA	1.000	YES	0.9	21	0.5	0.1	0.0	0.1	21	0.4	0.03	0.0010	0.01
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	0.444	0.1	0.3	Cattle	0.66	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00
Year 6	21	1	0.4	0.4	0.4	0	119	0	1	0.3	21	0.2	0.0	0.0	0.0	21	0.1	0.00	0.0010	0.00
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	1.000	YES	0.1	Cattle	0.84	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00
Year 7	21	1	0.1	0.1	0.1	0	11	0	1	0.1	21	0.0	0.0	0.0	0.0	21	0.0	0.00	0.0010	0.00
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	0.400	0.0	0.1	Dairy	2	0.0	0.0	0.0	Liquid	0.0	0.00	0.0125	0.00
Year 8	21	1	0.0	0.0	0.0	0	11	0	1	0.0	21	0.67	0.0	0.0	0.0	21	0.0	0.00	0.0010	0.00
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00
Year 9	21	1	0.0	0.0	0.0	0	1	0	1	0.0	21	0.65	0.0	0.0	0.0	21	0.0	0.00	0.0010	0.00
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	0.443	0.0	0.0	Dairy	2	0.0	0.0	0.0	Liquid	0.0	0.00	0.0125	0.00
Year 10	21	1	0.0	0.0	0.0	0	10	0	1	0.0	21	0.66	0.0	0.0	0.0	21	0.0	0.00	0.0010	0.00
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	1.000	YES	0.0	Cattle	0.66	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00
TOTAL			0.0269	0.0423			0.0324										101.0	0.90		0.27

N2O-N in food/beverage/fuel/other

Year	N	Vol/NH3	N	100.0	2.2 NON	100.00	WWHB	1.000	YES	97.8	21	64.3	19.0	0.0	10.8	21	45.3	2.04	3.18	1.93
Year 1	1	Vol/NH3	N	100.0	2.2 NON	100.00	WWHB	1.000	YES	22.7	Cattle	0.84	0.0	0.0	0.0	Cattle	3.6	1.40	2.02	1.32
N leach	1.022	1.000	1.000	1.000	41.4	0	11	0	10.8	22.7	Dairy	2	10.6	0.0	10.6	Liquid	0.0	0.06	0.0125	0.06
Year 2	21	1	42.3	41.4	10.4 NON	100.00	WWH	1.000	YES	31.1	21	18.6	4.4	0.0	3.4	21	14.2	0.44	0.79	0.42
N leach	Cattle	YES	0.9	0.9	ORG	1.000	WWH	1.000	YES	9.0	Cattle	0.67	0.0	0.0	0.0	Cattle	1.1	0.12	0.0125	0.12
Year 3	21	1	13.3	13.0	3.3 NON	100.00	WWH	1.000	YES	9.8	21	5.9	1.4	0.0	1.1	21	4.5	0.22	0.0010	0.07
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	0.400	3.4	9.0	Dairy	2	0.0	0.0	3.4	Liquid	0.0	0.13	0.0010	0.13
Year 4	21	1	4.2	4.1	4.1	0	1	0	1	2.8	21	0.67	0.4	0.0	1.1	21	0.4	0.04	0.0125	0.04
N leach	Cattle	YES	0.1	1.0 NON	100.00	SBA	1.000	1.000	YES	3.1	Cattle	0.65	0.1	0.0	0.3	21	0.1	0.01	0.0125	0.01
Year 5	21	1	1.2	1.2	0.3 NON	100.00	WBA	1.000	YES	0.9	21	0.5	0.1	0.0	0.1	21	0.4	0.03	0.0010	0.01
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	0.444	0.1	0.3	Cattle	0.66	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00
Year 6	21	1	0.4	0.4	0.4	0	119	0	1	0.3	21	0.2	0.0	0.0	0.0	21	0.1	0.00	0.0010	0.00
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	1.000	YES	0.1	Cattle	0.84	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00
Year 7	21	1	0.1	0.1	0.1	0	11	0	1	0.1	21	0.0	0.0	0.0	0.0	21	0.0	0.00	0.0010	0.00
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	0.400	0.0	0.1	Dairy	2	0.0	0.0	0.0	Liquid	0.0	0.00	0.0125	0.00
Year 8	21	1	0.0	0.0	0.0	0	11	0	1	0.0	21	0.67	0.0	0.0	0.0	21	0.0	0.00	0.0010	0.00
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00
Year 9	21	1	0.0	0.0	0.0	0	1	0	1	0.0	21	0.65	0.0	0.0	0.0	21	0.0	0.00	0.0010	0.00
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	0.443	0.0	0.0	Dairy	2	0.0	0.0	0.0	Liquid	0.0	0.00	0.0125	0.00
Year 10	21	1	0.0	0.0	0.0	0	10	0	1	0.0	21	0.66	0.0	0.0	0.0	21	0.0	0.00	0.0010	0.00
N leach	Liquid	0.933	1.016	1.016	ORG	1.000	1.000	1.000	YES	0.0	Cattle	0.66	0.0	0.0	0.0	Cattle	0.0	0.00	0.0125	0.00
TOTAL			0.0269	0.0423			0.0324										101.0	0.90		0.27

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

Area with crop, ha 0.64 0.24 0.08 0.03 0.01 0.00 0.00 0.00 0.00 0.00 0.99 1.56

Possible additional non IPCC N2O-N emissions	Value	Kind of source	Total IPCC and non IPCC N2O
N residues emissions, ratio of N2O-N to N:	0.0000	Current crops	3.18
Increased soil N emissions, kg N2O-N/ha:	0.00	Total anthropogenic	3.18
Natural background emissions, kg N2O-N/ha:	1.00	Total including natural	4.17

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

Year Fertilizer/manure # Store Amounts Field 1/0 Or-ganic 1/0 Nnorm propor 1/0 Crop # N crop Food/ #71/ bevs other #9 Fuel/ #8 #9 Manure Final N a- # Name mounts Each Total N2O-N emission IPCC 1996 IPCC 2006 N2O-N emission Total Each Total Note 44 Note 44 Note 44

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED										
Year N NH3	100.0	0	100	119	0	1	97.8	21	64.3	19.0	0.0	0.0	10.8	22	45.3	39.5	2.56	3.72	1.88	2.40	Note 45
1-10 N leach	0.0	2.2	NON	100.00	WWHB	1.000	YES	22.7	Cattle	0.84	0.0	0.0	0.0	0.0	2.3	24.4	0.24	0.125	0.04	0.1000	Note 45
	1.022	1.000	ORG	1.00	1.000	0.343	10.8	22.7	Dairy	2	10.6	Sep	10.6	Sep	0.0	36.7	0.92	0.105	0.17	0.0050	Note 45
Year 2	43.7	40.0	0	100	11	1.000	YES	30.0	21	16.7	3.9	0.0	3.3	22	12.8	36.4	0.28	0.105	0.40	0.62	Note 45
N leach	3.7	10.0	NON	100.00	WWH	1.000	YES	10.0	Cattle	0.67	0.0	0.0	0.0	0.0	0.6	100.0	0.92	0.125	0.14	0.0100	Note 45
Year 3	12.3	11.3	0	100	11	1.000	YES	8.5	21	4.7	1.1	0.0	0.9	22	3.6	101.0	0.28	0.105	0.11	0.17	Note 45
N leach	1.0	2.8	NON	100.00	WWH	1.000	YES	2.8	Cattle	0.67	0.0	0.0	0.0	0.0	0.2	24.2	0.24	0.105	0.04	0.0100	Note 45
Year 4	1.016	3.2	0	100	1	1.000	YES	2.4	21	1.2	0.3	0.0	0.3	22	1.0	100.0	0.28	0.105	0.02	0.0050	Note 45
N leach	0.867	0.8	NON	100.00	SBA	1.000	YES	0.9	Cattle	0.65	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 45	
Year 5	1.016	0.8	0	100	10	1.000	YES	0.9	21	0.3	0.1	0.0	0.1	22	0.0	100.0	0.28	0.105	0.01	0.0050	Note 45
N leach	0.867	0.2	NON	100.00	WBA	1.000	YES	0.6	21	0.3	0.1	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 45	
Year 6	1.016	0.2	0	100	119	1.000	YES	0.2	Cattle	0.66	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 45	
N leach	0.867	0.1	ORG	1.00	1.000	0.483	0.1	0.2	Dairy	2	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 45	
Year 7	1.016	0.1	0	100	11	1.000	YES	0.1	Cattle	0.84	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 45	
N leach	0.867	0.1	ORG	1.00	1.000	0.443	0.0	0.1	Dairy	2	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 45	
Year 8	1.016	0.1	0	100	11	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 45	
N leach	0.867	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 45	
Year 9	1.016	0.0	0	100	1	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 45	
N leach	0.867	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 45	
Year 10	1.016	0.0	0	100	10	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 45	
N leach	0.867	0.0	ORG	1.00	1.000	0.483	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 45	

N2O-N in food/beverage/fuel/other 0.0934

Year	N	1	100.0	0	100	119	0	1	97.8	21	64.3	19.0	0.0	0.0	10.8	22	45.3	1.81	2.42	1.33	1.54	Note 47
1	Vol/NH3	N	YES	2.2	NON	100.00	WWHB	1.000	YES	22.7	Cattle	0.84	0.0	0.0	0.0	0.0	2.3	0.04	0.0125	0.04	0.0100	Note 47
Year	N leach	1.022	1.000	ORG	1.00	1.000	0.343	10.8	22.7	Dairy	2	10.6	Sep	10.6	Sep	0.0	36.4	0.57	0.105	0.17	0.0050	Note 47
Year 2	43.7	40.0	0	100	11	1.000	YES	30.0	21	16.7	3.9	0.0	3.3	22	12.8	36.4	0.40	0.105	0.40	0.62	Note 47	
N leach	3.7	10.0	NON	100.00	WWH	1.000	YES	10.0	Cattle	0.67	0.0	0.0	0.0	0.0	0.6	100.0	0.92	0.125	0.14	0.0100	Note 47	
Year 3	12.3	11.3	0	100	11	1.000	YES	8.5	21	4.7	1.1	0.0	0.9	22	3.6	101.0	0.28	0.105	0.07	0.0050	Note 47	
N leach	1.0	2.8	NON	100.00	WWH	1.000	YES	2.8	Cattle	0.67	0.0	0.0	0.0	0.0	0.2	24.2	0.24	0.105	0.04	0.0100	Note 47	
Year 4	1.016	3.2	0	100	1	1.000	YES	2.4	21	1.2	0.3	0.0	0.3	22	1.0	100.0	0.28	0.105	0.02	0.0050	Note 47	
N leach	0.867	0.8	NON	100.00	SBA	1.000	YES	0.9	Cattle	0.65	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 47		
Year 5	1.016	0.8	0	100	10	1.000	YES	0.9	21	0.3	0.1	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 47		
N leach	0.867	0.2	NON	100.00	WBA	1.000	YES	0.6	21	0.3	0.1	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 47		
Year 6	1.016	0.2	0	100	119	1.000	YES	0.2	Cattle	0.66	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 47		
N leach	0.867	0.1	ORG	1.00	1.000	0.483	0.1	0.2	Dairy	2	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 47		
Year 7	1.016	0.1	0	100	11	1.000	YES	0.1	Cattle	0.84	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 47		
N leach	0.867	0.1	ORG	1.00	1.000	0.443	0.0	0.1	Dairy	2	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 47		
Year 8	1.016	0.1	0	100	11	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 47		
N leach	0.867	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 47		
Year 9	1.016	0.0	0	100	1	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 47		
N leach	0.867	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 47		
Year 10	1.016	0.0	0	100	10	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 47		
N leach	0.867	0.0	ORG	1.00	1.000	0.483	0.0	0.0	Dairy	2	0.0	0.0	0.0	0.0	0.0	2.40	0.24	0.01	0.0050	Note 47		

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

Area with crop, ha 0.64 0.22 0.06 0.02 0.00 0.00 0.00 0.00 0.00 0.00 0.94 1.48 Note 50

Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha: 0.66
 Total IPCC and non IPCC N2O 3.72
 Total anthropogenic 3.72
 Total including natural 4.66
 Note 51 Note 51 Note 51 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CEREAL STRAW CROP TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND CATTLE DAIRY
 AND CONTINUING WITH CATTLE DEEP LITTER TO PRODUCE WINTER WHEAT FOR MANURE HANDLING N-a-IPCC 1996 N2O-N emission
 Year Fertilizer/manure # Store Amounts Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Use # Name Fed Fodder: Uses #21-61 Food #72 N crop #71/ bev #8 Fuel/ other #9 Final N-a-IPCC 2006

Year	Fertilizer/manure #	Store	Amounts	Field 1/0	Or-ganic 1/0	Nnorm propor-tion, %	Name #	Crop use & leach	Straw used 1/0	Use #	Name	Fed	Fodder: Uses #21-61	Food #72	N crop #71/ bev #8	Fuel/ other #9	Final N-a-IPCC 2006	N2O-N emission	
Total N	1	1	100.0	100.0	0	100	119	0	1	97.8	21	64.3	19.0	0.0	0.0	10.8	36.0	33.3	1.72
Year N NH3	YES	YES	0.0	2.2	NON	100.00	WWHB	1.000	YES	22.7	Cattle	0.84	0.0	0.0	0.0	0.0	33.7	31.1	0.34
1-10 N leach	1.022	1.000	1.000	34.5	0	100	11	0.343	10.8	22.7	Dairy	2	10.6	Deep	10.6	0.0	38.4	35.5	0.29
Year 2	23	1	49.4	8.6	NON	100.00	WWH	1.000	YES	25.9	21	10.0	2.4	0.0	0.0	2.9	23	7.6	0.33
N leach	Deep	0.600	1.159	5.8	0	100	11	0.614	2.9	13.1	Cattle	0.67	0.0	0.0	0.0	2.8	Deep	0.5	0.24
Year 3	23	1	8.3	1.5	NON	100.00	WWH	1.000	YES	4.4	21	1.7	0.4	0.0	0.0	0.5	23	1.3	0.06
N leach	Cattle	0.600	1.159	1.0	NON	100.00	WWH	1.000	YES	2.2	Cattle	0.67	0.0	0.0	0.0	0.0	0.0	0.1	0.04
Year 4	23	1	1.4	1.0	NON	100.00	SBA	1.000	YES	0.7	21	0.3	0.1	0.0	0.0	0.1	23	0.2	0.02
N leach	Cattle	0.600	1.159	0.2	NON	100.00	SBA	1.000	YES	0.4	Cattle	0.65	0.0	0.0	0.0	0.0	0.0	0.0	0.01
Year 5	23	1	0.2	0.2	NON	100.00	WBA	1.000	YES	0.1	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00
N leach	Cattle	0.600	1.159	0.0	NON	100.00	WBA	1.000	YES	0.1	Cattle	0.66	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Year 6	23	1	0.0	0.0	NON	100.00	WWHB	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00
N leach	Deep	0.600	1.159	0.0	NON	100.00	WWH	1.000	YES	0.0	Dairy	2	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Year 7	23	1	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00
N leach	Cattle	0.600	1.159	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Year 8	23	1	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00
N leach	Deep	0.600	1.159	0.0	NON	100.00	WWH	1.000	YES	0.0	Dairy	2	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Year 9	23	1	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00
N leach	Cattle	0.600	1.159	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65	0.0	0.0	0.0	0.0	0.0	0.0	0.00
Year 10	23	1	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00
N leach	Cattle	0.600	1.159	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66	0.0	0.0	0.0	0.0	0.0	0.0	0.00
N leach	Deep	0.600	1.159	0.0	NON	100.00	WBA	1.000	YES	0.0	Dairy	2	0.0	0.0	0.0	0.0	0.0	0.0	0.00

N2O-N in food/beverage/fuel/other

Year	N	Vol/NH3	N	100.0	0	100	119	0	1	97.8	21	64.3	19.0	0.0	0.0	10.8	23	45.3	2.21	2.82	1.32	1.54	Note 47
1	1	1	100.0	100.0	0	100	119	0	1	97.8	21	64.3	19.0	0.0	0.0	10.8	23	45.3	2.21	2.82	1.32	1.54	Note 47
N leach	Deep	0.600	1.159	0.0	NON	100.00	WWHB	1.000	YES	22.7	Cattle	0.84	0.0	0.0	0.0	0.0	0.0	2.7	0.05	0.125	0.05	0.0100	Note 48
Year 2	23	1	49.4	8.6	NON	100.00	WWH	1.000	YES	25.9	21	10.0	2.4	0.0	0.0	2.9	23	7.6	0.57	0.200	0.17	0.0050	Note 49
N leach	Deep	0.600	1.159	5.8	0	100	11	0.614	2.9	13.1	Cattle	0.67	0.0	0.0	0.0	2.8	Deep	0.5	0.24	0.125	0.24	0.0100	Note 48
Year 3	23	1	8.3	1.5	NON	100.00	WWH	1.000	YES	4.4	21	1.7	0.4	0.0	0.0	0.5	23	1.3	0.33	0.200	0.10	0.0050	Note 49
N leach	Cattle	0.600	1.159	1.0	NON	100.00	WWH	1.000	YES	2.2	Cattle	0.67	0.0	0.0	0.0	0.0	0.0	0.1	0.04	0.125	0.04	0.0100	Note 48
Year 4	23	1	1.4	1.0	NON	100.00	SBA	1.000	YES	0.7	21	0.3	0.1	0.0	0.0	0.1	23	0.2	0.06	0.200	0.02	0.0050	Note 49
N leach	Cattle	0.600	1.159	0.2	NON	100.00	SBA	1.000	YES	0.4	Cattle	0.65	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.125	0.01	0.0100	Note 48
Year 5	23	1	0.2	0.2	NON	100.00	WBA	1.000	YES	0.1	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.01	0.200	0.00	0.0050	Note 49
N leach	Deep	0.600	1.159	0.0	NON	100.00	WBA	1.000	YES	0.1	Cattle	0.66	0.0	0.0	0.0	0.0	0.0	0.0	0.01	0.200	0.00	0.0050	Note 49
Year 6	23	1	0.0	0.0	NON	100.00	WWHB	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.200	0.00	0.0050	Note 48
N leach	Deep	0.600	1.159	0.0	NON	100.00	WWH	1.000	YES	0.0	Dairy	2	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.200	0.00	0.0050	Note 49
Year 7	23	1	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.200	0.00	0.0050	Note 48
N leach	Cattle	0.600	1.159	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.200	0.00	0.0050	Note 49
Year 8	23	1	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.200	0.00	0.0050	Note 47
N leach	Deep	0.600	1.159	0.0	NON	100.00	WWH	1.000	YES	0.0	Dairy	2	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.200	0.00	0.0050	Note 48
Year 9	23	1	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.200	0.00	0.0050	Note 49
N leach	Cattle	0.600	1.159	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.200	0.00	0.0050	Note 48
Year 10	23	1	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	21	0.0	0.0	0.0	0.0	0.0	23	0.0	0.00	0.200	0.00	0.0050	Note 49
N leach	Cattle	0.600	1.159	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.200	0.00	0.0050	Note 48
N leach	Deep	0.600	1.159	0.0	NON	100.00	WBA	1.000	YES	0.0	Dairy	2	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.200	0.00	0.0050	Note 49

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

Area with crop, ha 0.64 0.13 0.02 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.79 1.25

Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha: 0.00
 Total IPCC and non IPCC N2O 4.11
 Total anthropogenic 4.11
 Total including natural 4.90
 Note 51 2.34 Note 51 2.34 Note 51 3.14 Note 51

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

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

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED									
Year N NH3	IPCC 1996					IPCC 2006					TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3					TOTAL N AMOUNTS IN KG AND % LEACHED				
1-10 N leach	0.0380	0.0294	0.0294	0.0447	0.0447	0.0380	0.0294	0.0294	0.0447	0.0447	39.7	39.7	6.3	6.3	54.0	54.0	100.0	100.0		
TOTAL	0.0623	0.0447	0.0447	0.0447	0.0447	0.0380	0.0294	0.0294	0.0447	0.0447	39.7	39.7	6.3	6.3	54.0	54.0	100.0	100.0		

N2O-N in food/beverage/fuel/other 0.1178 0.0845 Note 46

Year N	1	100.0	100.0	0	100	119	0	1	97.8	21	64.3	19.0	0.0	0.0	10.8	24	45.3	2.02
1	Vol/NH3 N	YES	0.0	2.2	NON	100.00	WWHB	1.000	YES	1.000	0.84	0.84	0.0	0.0	0.0	Cattle	0.0	2.85
N leach	1.022	1.000	0.343	10.8	ORG	1.00	1.000	0.343	22.7	Dairy	2	10.6	10.6	10.6	Graz	0.0	0.02	0.02
Year N	2	45.3	45.3	0	100	11	0	1	42.1	21	13.1	3.1	0.0	0.0	4.7	24	10.0	0.17
2	Vol/NH3 Cattle	YES	0.0	3.2	NON	100.00	WWHB	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	Cattle	0.0	0.57
N leach	0.484	1.000	0.689	4.7	ORG	1.00	1.000	0.689	24.4	Dairy	2	4.6	4.6	4.6	Graz	0.0	0.03	0.03
Year N	3	10.0	10.0	0	100	11	0	1	9.3	21	2.9	0.7	0.0	0.0	1.0	24	2.2	0.68
3	Vol/NH3 Cattle	YES	0.0	0.7	NON	100.00	WWHB	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	Cattle	0.0	0.18
N leach	0.484	1.000	0.689	1.0	ORG	1.00	1.000	0.689	5.4	Dairy	2	1.0	1.0	1.0	Graz	0.0	0.03	0.03
Year N	4	2.2	2.2	0	100	1	0	1	2.1	21	0.6	0.1	0.0	0.0	0.2	24	0.5	0.15
4	Vol/NH3 Cattle	YES	0.0	0.2	NON	100.00	SBA	1.000	YES	1.000	0.65	0.65	0.0	0.0	0.0	Cattle	0.0	0.01
N leach	0.484	1.000	0.711	0.2	ORG	1.00	1.000	0.711	1.2	Dairy	2	0.2	0.2	0.2	Graz	0.0	0.01	0.01
Year N	5	0.5	0.5	0	100	10	0	1	0.4	21	0.1	0.0	0.0	0.0	0.0	24	0.1	0.01
5	Vol/NH3 Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	1.000	0.66	0.66	0.0	0.0	0.0	Cattle	0.0	0.01
N leach	0.484	1.000	0.712	0.0	ORG	1.00	1.000	0.712	0.3	Dairy	2	0.0	0.0	0.0	Graz	0.0	0.01	0.01
Year N	6	0.1	0.1	0	100	119	0	1	0.1	21	0.0	0.0	0.0	0.0	0.0	24	0.0	0.00
6	Vol/NH3 Cattle	YES	0.0	0.0	NON	100.00	WWHB	1.000	YES	1.000	0.84	0.84	0.0	0.0	0.0	Cattle	0.0	0.00
N leach	0.484	1.000	0.689	0.0	ORG	1.00	1.000	0.689	0.1	Dairy	2	0.0	0.0	0.0	Graz	0.0	0.00	0.00
Year N	7	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
7	Vol/NH3 Cattle	YES	0.0	0.0	NON	100.00	WWHB	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	Cattle	0.0	0.00
N leach	0.484	1.000	0.689	0.0	ORG	1.00	1.000	0.689	0.0	Dairy	2	0.0	0.0	0.0	Graz	0.0	0.00	0.00
Year N	8	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
8	Vol/NH3 Cattle	YES	0.0	0.0	NON	100.00	WWHB	1.000	YES	1.000	0.67	0.67	0.0	0.0	0.0	Cattle	0.0	0.00
N leach	0.484	1.000	0.689	0.0	ORG	1.00	1.000	0.689	0.0	Dairy	2	0.0	0.0	0.0	Graz	0.0	0.00	0.00
Year N	9	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
9	Vol/NH3 Cattle	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	1.000	0.65	0.65	0.0	0.0	0.0	Cattle	0.0	0.00
N leach	0.484	1.000	0.711	0.0	ORG	1.00	1.000	0.711	0.0	Dairy	2	0.0	0.0	0.0	Graz	0.0	0.00	0.00
Year N	10	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
10	Vol/NH3 Cattle	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	1.000	0.66	0.66	0.0	0.0	0.0	Cattle	0.0	0.00
N leach	0.484	1.000	0.712	0.0	ORG	1.00	1.000	0.712	0.0	Dairy	2	0.0	0.0	0.0	Graz	0.0	0.00	0.00

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

Area with crop, ha 0.64 0.14 0.03 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.81 1.28 Note 50

Possible additional non IPCC N2O-N emissions Value
 N residues emissions, ratio of N2O-N to N: 0.0000
 Increased soil N emissions, kg N2O-N/ha: 0.00
 Natural background emissions, kg N2O-N/ha: 1.00
 Total IPCC and non IPCC N2O 4.68
 Kind of source
 Current crops 3.35
 Total anthropogenic 4.68
 Total including natural 5.49
 Note 51
 Note 51
 Note 51
 Note 51

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

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

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED												
Year N NH3	1	1	100.0	100.0	0	100	119	0	1	97.8	22	64.3	16.7	0.0	0.0	10.8	21	47.5	38.4	2.09	3.26	1.98	2.51
1-10 N leach	1.022	1.000	0.0	2.2	NON	100.00	WWHB	1.000	YES	22.7	Cattle	0.84	0.0	0.0	0.0	0.0	Cattle	3.8	25.1	0.25	0.25	0.25	0.28
	21	1	44.4	43.5	0	100	11	0	1	32.6	22	19.6	4.1	0.0	0.0	3.6	21	15.5	36.5	0.92	0.92	0.28	0.28
			1.0	10.9	NON	100.00	WWH	1.000	YES	9.4	Cattle	0.67	0.0	0.0	0.0	0.0	Cattle	1.2	36.5	0.28	0.28	0.28	0.28
	21	1	14.5	14.2	0	100	11	0	1	10.6	22	6.4	1.3	0.0	0.0	1.2	21	5.0	101.0	0.00	0.00	0.00	0.00
			0.3	3.5	NON	100.00	WWH	1.000	YES	3.1	Cattle	0.67	0.0	0.0	0.0	0.0	Cattle	0.4	101.0	0.00	0.00	0.00	0.00
	21	1	4.7	4.6	0	100	1	0	1	3.5	22	1.9	0.4	0.0	0.0	0.4	21	1.5	101.0	0.00	0.00	0.00	0.00
			0.1	1.2	NON	100.00	SBA	1.000	YES	1.1	Cattle	0.65	0.0	0.0	0.0	0.0	Cattle	0.1	101.0	0.00	0.00	0.00	0.00
	21	1	1.4	1.4	0	100	10	0	1	1.1	22	0.6	0.1	0.0	0.0	0.1	21	0.5	101.0	0.00	0.00	0.00	0.00
			0.0	0.4	NON	100.00	WBA	1.000	YES	0.3	Cattle	0.66	0.0	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00
	21	1	1.016	0.4	0	100	119	0.444	0.1	0.3	22	0.2	0.1	0.0	0.0	0.0	21	0.1	101.0	0.00	0.00	0.00	0.00
			0.0	0.1	NON	100.00	WWHB	1.000	YES	0.1	Cattle	0.84	0.0	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00
	21	1	1.016	0.1	0	100	11	0.400	0.0	0.1	22	0.1	0.0	0.0	0.0	0.0	21	0.0	101.0	0.00	0.00	0.00	0.00
			0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00
	21	1	1.016	0.0	0	100	11	0.400	0.0	0.1	22	0.0	0.0	0.0	0.0	0.0	21	0.0	101.0	0.00	0.00	0.00	0.00
			0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00
	21	1	1.016	0.0	0	100	1000	0.400	0.0	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	101.0	0.00	0.00	0.00	0.00
			0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65	0.0	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00
	21	1	1.016	0.0	0	100	10	0.443	0.0	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	101.0	0.00	0.00	0.00	0.00
			0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66	0.0	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00
	21	1	1.016	0.0	0	100	10	0.400	0.0	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	101.0	0.00	0.00	0.00	0.00
			0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66	0.0	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00
	21	1	1.016	0.0	0	100	1000	0.444	0.0	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	101.0	0.00	0.00	0.00	0.00
			0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66	0.0	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00

N2O-N in food/beverage/fuel/other 0.0839 0.0646 Note 46

Year N	1	1	100.0	100.0	0	100	119	0	1	97.8	22	64.3	16.7	0.0	0.0	10.8	21	47.5	38.4	2.09	3.26	1.98	2.51
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WWHB	1.000	YES	22.7	Cattle	0.84	0.0	0.0	0.0	Cattle	3.8	25.1	0.25	0.25	0.25	0.28
Year N	2	1	44.4	43.5	0	100	11	0	1	32.6	22	19.6	4.1	0.0	0.0	3.6	21	15.5	36.5	0.92	0.92	0.28	0.28
2	Vol/NH3	Cattle	YES	1.0	10.9	NON	100.00	WWH	1.000	YES	9.4	Cattle	0.67	0.0	0.0	0.0	Cattle	1.2	36.5	0.28	0.28	0.28	0.28
Year N	3	1	14.5	14.2	0	100	11	0	1	10.6	22	6.4	1.3	0.0	0.0	1.2	21	5.0	101.0	0.00	0.00	0.00	0.00
3	Vol/NH3	Liquid	YES	0.3	3.5	NON	100.00	WWH	1.000	YES	3.1	Cattle	0.67	0.0	0.0	0.0	Cattle	0.4	101.0	0.00	0.00	0.00	0.00
Year N	4	1	4.7	4.6	0	100	1	0	1	3.5	22	1.9	0.4	0.0	0.0	0.4	21	1.5	101.0	0.00	0.00	0.00	0.00
4	Vol/NH3	Liquid	YES	0.1	1.2	NON	100.00	SBA	1.000	YES	1.1	Cattle	0.65	0.0	0.0	0.0	Cattle	0.1	101.0	0.00	0.00	0.00	0.00
Year N	5	1	1.4	1.4	0	100	10	0	1	1.1	22	0.6	0.1	0.0	0.0	0.1	21	0.5	101.0	0.00	0.00	0.00	0.00
5	Vol/NH3	Liquid	YES	0.0	0.4	NON	100.00	WBA	1.000	YES	0.3	Cattle	0.66	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00
Year N	6	1	1.016	0.4	0	100	119	0.444	0.1	0.3	22	0.2	0.1	0.0	0.0	0.0	21	0.1	101.0	0.00	0.00	0.00	0.00
6	Vol/NH3	Liquid	YES	0.0	0.1	NON	100.00	WWHB	1.000	YES	0.1	Cattle	0.84	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00
Year N	7	1	1.016	0.1	0	100	11	0.400	0.0	0.1	22	0.1	0.0	0.0	0.0	0.0	21	0.0	101.0	0.00	0.00	0.00	0.00
7	Vol/NH3	Liquid	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00
Year N	8	1	1.016	0.0	0	100	11	0.400	0.0	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	101.0	0.00	0.00	0.00	0.00
8	Vol/NH3	Liquid	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Cattle	0.67	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00
Year N	9	1	1.016	0.0	0	100	1000	0.400	0.0	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	101.0	0.00	0.00	0.00	0.00
9	Vol/NH3	Liquid	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Cattle	0.65	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00
Year N	10	1	1.016	0.0	0	100	10	0.443	0.0	0.0	22	0.0	0.0	0.0	0.0	0.0	21	0.0	101.0	0.00	0.00	0.00	0.00
10	Vol/NH3	Liquid	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00
			0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Cattle	0.66	0.0	0.0	0.0	0.0	Cattle	0.0	101.0	0.00	0.00	0.00	0.00

Year Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1
 Area with crop, ha 0.64 0.25 0.08 0.04 0.01 0.00 0.00 0.00 0.00 0.00 1.02 1.60 Note 50
 Possible additional non IPCC N2O-N emissions Value 0.0000 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 N residues emissions, ratio of N2O-N to N: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00 0.64 0.25 0.08 0.04 0.01 0.00 0.00 0.00 0.00 1.02 Total including natural
 Natural background emissions, kg N2O-N/ha: 1.00 0.64 0.25 0.08 0.04 0.01 0.00 0.00 0.00 0.00 1.02 Total including natural 4.28
 Total IPCC and non IPCC N2O 3.26
 Note 51 2.51 Note 51
 Note 51 2.51 Note 51
 Note 51 3.53 Note 51

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

Year	Fertilizer/manure #	Store 1/0	Amounts 1/0	Field 1/0	Or-ganic 1/0	Nnorm #	Crop use & leach	Straw used 1/0	Cereal benefit 1/0	Use #	Fodder: Uses #21-61	Food #72	Food #8	Fuel/ other #9	Manure handling #	Final N a-	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total
Total N	1	1	100.0	100.0	0	100	119	0	1	97.8	32	64.3	26.9	0.0	0.0	10.8	31	37.4	49.3
Year 1-10 N leach	YES	1.022	1.000	0.0	2.2	NON	100.00	1.000	YES	22.7	Pig	0.84	0.0	0.0	0.0	0.0	Pig	5.2	20.4
Year 1-10 N leach	YES	1.000	1.000	0.0	31.3	0	100	11	0	23.5	32	15.1	6.3	0.0	0.0	2.6	31	8.8	30.4
Year 1-10 N leach	YES	1.000	1.000	0.9	7.8	NON	100.00	1.000	YES	5.8	Pig	0.67	0.0	0.0	0.0	0.0	Pig	1.2	30.4
Year 1-10 N leach	YES	1.000	1.000	7.6	7.3	0	100	11	0	5.5	32	3.5	1.5	0.0	0.0	0.6	31	2.1	100.0
Year 1-10 N leach	YES	1.000	1.000	0.2	1.8	NON	100.00	1.000	YES	1.4	Pig	0.67	0.0	0.0	0.0	0.0	Pig	0.3	20.4
Year 1-10 N leach	YES	1.000	1.000	1.8	1.7	0	100	1	0	1.3	32	0.8	0.3	0.0	0.0	0.1	31	0.4	30.4
Year 1-10 N leach	YES	1.000	1.000	0.0	0.4	NON	100.00	1.000	YES	0.4	Pig	0.65	0.0	0.0	0.0	0.0	Pig	0.1	100.0
Year 1-10 N leach	YES	1.000	1.000	0.4	0.4	0	100	10	0	0.3	32	0.2	0.1	0.0	0.0	0.0	Liquid	0.0	49.3
Year 1-10 N leach	YES	1.000	1.000	0.0	0.1	NON	100.00	1.000	YES	0.1	Pig	0.66	0.0	0.0	0.0	0.0	Pig	0.1	20.4
Year 1-10 N leach	YES	1.000	1.000	0.0	0.1	NON	100.00	1.000	YES	0.1	Pig	0.66	0.0	0.0	0.0	0.0	Pig	0.0	30.4
Year 1-10 N leach	YES	1.000	1.000	0.1	0.1	0	100	119	0	0.1	32	0.0	0.0	0.0	0.0	0.0	Liquid	0.0	100.0
Year 1-10 N leach	YES	1.000	1.000	0.0	0.0	NON	100.00	1.000	YES	0.0	Pig	0.84	0.0	0.0	0.0	0.0	Pig	0.0	20.4
Year 1-10 N leach	YES	1.000	1.000	0.0	0.0	NON	100.00	1.000	YES	0.0	Pig	0.84	0.0	0.0	0.0	0.0	Pig	0.0	30.4
Year 1-10 N leach	YES	1.000	1.000	0.0	0.0	NON	100.00	1.000	YES	0.0	Pig	0.84	0.0	0.0	0.0	0.0	Pig	0.0	100.0
Year 1-10 N leach	YES	1.000	1.000	0.0	0.0	NON	100.00	1.000	YES	0.0	Pig	0.84	0.0	0.0	0.0	0.0	Pig	0.0	20.4
Year 1-10 N leach	YES	1.000	1.000	0.0	0.0	NON	100.00	1.000	YES	0.0	Pig	0.84	0.0	0.0	0.0	0.0	Pig	0.0	30.4
Year 1-10 N leach	YES	1.000	1.000	0.0	0.0	NON	100.00	1.000	YES	0.0	Pig	0.84	0.0	0.0	0.0	0.0	Pig	0.0	100.0
Year 1-10 N leach	YES	1.000	1.000	0.0	0.0	NON	100.00	1.000	YES	0.0	Pig	0.84	0.0	0.0	0.0	0.0	Pig	0.0	20.4
Year 1-10 N leach	YES	1.000	1.000	0.0	0.0	NON	100.00	1.000	YES	0.0	Pig	0.84	0.0	0.0	0.0	0.0	Pig	0.0	30.4
Year 1-10 N leach	YES	1.000	1.000	0.0	0.0	NON	100.00	1.000	YES	0.0	Pig	0.84	0.0	0.0	0.0	0.0	Pig	0.0	100.0

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

Year	N	Vol/NH3	N	leach	Year	N	Vol/NH3	N	leach	Year	N	Vol/NH3	N	leach	Year	N	Vol/NH3	N	leach	Year	N	Vol/NH3	N	leach	Year	N	Vol/NH3	N	leach	Year	N	Vol/NH3	N	leach	Year	N	Vol/NH3	N	leach	Year	N	Vol/NH3	N	leach					
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1	1	100.0	100.0	6	1	1	100.0	100.0	7	1	1	100.0	100.0	8	1	1	100.0	100.0	9	1	1	100.0	100.0	10	1	1	100.0	100.0
1	1	1	100.0	100.0	2	1	1	100.0	100.0	3	1	1	100.0	100.0	4	1	1	100.0	100.0	5	1																												

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

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

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED													
Year N NH3	100.0	0	100	119	0	1	97.8	32	64.3	26.9	0.0	0.0	10.8	33	37.4	41.6	1.45	1.99	3.25	2.22	3.25	0.33	1.45	
1-10 N leach	0.0	2.2	NON	100.00	WWHB	1.000	YES	22.7	Pig	0.84	0.0	0.0	0.0	0.0	9.4	31.4	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
FIRST YEAR	1.022	1.000	ORG	1.00	1.000	0.343	10.8	3	3	10.6	Deep	0.0	0.0	0.0	4.6	27.0	0.70	0.21	0.70	0.70	0.70	0.21	0.21	0.21
TOTAL	33	1	33	11	11	0	1	14.2	32	7.9	3.3	0.0	0.0	1.6	33	27.0	0.70	0.21	0.70	0.70	0.70	0.21	0.21	0.21
	12.6	4.7	NON	100.00	WWH	1.000	YES	4.7	Pig	0.67	0.0	0.0	0.0	0.0	1.2	100.0	1.45	1.99	3.25	2.22	3.25	0.33	1.45	
	1.127	2.3	ORG	1.00	1.000	0.443	1.6	4.7	Pork	3	0.4	0.0	0.0	0.2	0.6	41.6	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	3.9	0.6	NON	100.00	WWH	1.000	YES	0.6	Pig	0.67	0.0	0.0	0.0	0.1	0.1	31.4	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	1.6	0.6	ORG	1.00	1.000	0.443	0.2	0.6	Pork	3	0.0	0.0	0.0	0.2	0.1	27.0	0.70	0.21	0.70	0.70	0.70	0.21	0.21	
	1.127	0.3	ORG	1.00	1.000	0.483	0.0	0.1	Pig	0.65	0.0	0.0	0.0	0.0	0.1	100.0	1.45	1.99	3.25	2.22	3.25	0.33	1.45	
	0.5	0.1	NON	100.00	SBA	1.000	YES	0.1	Pig	3	0.0	0.0	0.0	0.0	0.0	41.6	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	1.127	0.0	ORG	1.00	1.000	0.483	0.0	0.1	Pork	3	0.0	0.0	0.0	0.0	0.0	31.4	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	1.127	0.0	0.0	100	10	0	1	0.0	0.0	0.66	0.0	0.0	0.0	0.0	0.0	31.4	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	0.1	0.0	NON	100.00	WBA	1.000	YES	0.0	Pig	3	0.0	0.0	0.0	0.0	0.0	27.0	0.70	0.21	0.70	0.70	0.70	0.21	0.21	
	1.127	0.0	ORG	1.00	1.000	0.483	0.0	0.0	Pork	3	0.0	0.0	0.0	0.0	0.0	100.0	1.45	1.99	3.25	2.22	3.25	0.33	1.45	
	1.127	0.0	0.0	100	11	0	1	0.0	0.0	0.84	0.0	0.0	0.0	0.0	0.0	41.6	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Pig	3	0.0	0.0	0.0	0.0	0.0	31.4	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	1.127	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Pork	3	0.0	0.0	0.0	0.0	0.0	27.0	0.70	0.21	0.70	0.70	0.70	0.21	0.21	
	1.127	0.0	0.0	100	11	0	1	0.0	0.0	0.84	0.0	0.0	0.0	0.0	0.0	100.0	1.45	1.99	3.25	2.22	3.25	0.33	1.45	
	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Pig	3	0.0	0.0	0.0	0.0	0.0	31.4	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	1.127	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Pork	3	0.0	0.0	0.0	0.0	0.0	27.0	0.70	0.21	0.70	0.70	0.70	0.21	0.21	
	1.127	0.0	0.0	100	11	0	1	0.0	0.0	0.67	0.0	0.0	0.0	0.0	0.0	100.0	1.45	1.99	3.25	2.22	3.25	0.33	1.45	
	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Pig	3	0.0	0.0	0.0	0.0	0.0	31.4	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	1.127	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Pork	3	0.0	0.0	0.0	0.0	0.0	27.0	0.70	0.21	0.70	0.70	0.70	0.21	0.21	
	1.127	0.0	0.0	100	11	0	1	0.0	0.0	0.67	0.0	0.0	0.0	0.0	0.0	100.0	1.45	1.99	3.25	2.22	3.25	0.33	1.45	
	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Pig	3	0.0	0.0	0.0	0.0	0.0	31.4	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	1.127	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Pork	3	0.0	0.0	0.0	0.0	0.0	27.0	0.70	0.21	0.70	0.70	0.70	0.21	0.21	
	1.127	0.0	0.0	100	11	0	1	0.0	0.0	0.67	0.0	0.0	0.0	0.0	0.0	100.0	1.45	1.99	3.25	2.22	3.25	0.33	1.45	
	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Pig	3	0.0	0.0	0.0	0.0	0.0	31.4	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	1.127	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Pork	3	0.0	0.0	0.0	0.0	0.0	27.0	0.70	0.21	0.70	0.70	0.70	0.21	0.21	
	1.127	0.0	0.0	100	11	0	1	0.0	0.0	0.67	0.0	0.0	0.0	0.0	0.0	100.0	1.45	1.99	3.25	2.22	3.25	0.33	1.45	
	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Pig	3	0.0	0.0	0.0	0.0	0.0	31.4	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	1.127	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Pork	3	0.0	0.0	0.0	0.0	0.0	27.0	0.70	0.21	0.70	0.70	0.70	0.21	0.21	
	1.127	0.0	0.0	100	11	0	1	0.0	0.0	0.66	0.0	0.0	0.0	0.0	0.0	100.0	1.45	1.99	3.25	2.22	3.25	0.33	1.45	
	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Pig	3	0.0	0.0	0.0	0.0	0.0	31.4	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	1.127	0.0	ORG	1.00	1.000	0.483	0.0	0.0	Pork	3	0.0	0.0	0.0	0.0	0.0	27.0	0.70	0.21	0.70	0.70	0.70	0.21	0.21	
	1.127	0.0	0.0	100	11	0	1	0.0	0.0	0.66	0.0	0.0	0.0	0.0	0.0	100.0	1.45	1.99	3.25	2.22	3.25	0.33	1.45	
	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Pig	3	0.0	0.0	0.0	0.0	0.0	31.4	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
	1.127	0.0	ORG	1.00	1.000	0.483	0.0	0.0	Pork	3	0.0	0.0	0.0	0.0	0.0	27.0	0.70	0.21	0.70	0.70	0.70	0.21	0.21	

N2O-N in food/beverage/fuel/other

Year N	1	100.0	100.0	0	100	119	0	1	97.8	32	64.3	26.9	0.0	0.0	10.8	33	37.4	1.25	2.60	1.92	2.60	0.12	1.25	
1	Vol/NH3 N	YES	0.0	2.2	NON	100.00	WWHB	1.000	YES	22.7	Pig	0.84	0.0	0.0	0.0	0.0	9.4	0.12	0.125	0.12	0.125	0.12	0.125	
	N leach	1.022	1.000	ORG	1.00	1.000	0.343	10.8	22.7	Pork	3	10.6	Deep	0.0	0.0	0.0	0.0	0.57	0.0200	0.57	0.0200	0.17	0.0050	
Year N	2	33	1	33	11	11	0	1	14.2	32	7.9	3.3	0.0	0.0	1.6	33	4.6	0.17	0.200	0.27	0.200	0.17	0.0050	
2	Vol/NH3 Pig	YES	12.6	4.7	NON	100.00	WWH	1.000	YES	4.7	Pig	0.67	0.0	0.0	0.0	0.0	0.0	0.40	0.0200	0.57	0.0200	0.18	0.40	
	N leach	Deep	1.127	2.3	ORG	1.00	1.000	0.443	1.6	4.7	Pork	3	1.5	Deep	0.0	0.0	1.2	0.19	0.0125	0.19	0.0125	0.19	0.0100	
Year N	3	33	1	33	11	11	0	1	1.8	32	1.0	0.4	0.0	0.0	0.2	33	0.6	0.04	0.07	0.03	0.07	0.02	0.05	
3	Vol/NH3 Pig	YES	1.6	0.6	NON	100.00	WWH	1.000	YES	0.6	Pig	0.67	0.0	0.0	0.0	0.1	0.1	0.02	0.0125	0.02	0.0125	0.02	0.0100	
	N leach	Deep	1.127	0.6	ORG	1.00	1.000	0.443	0.2	0.6	Pork	3	0.2	Deep	0.0	0.0	0.1	0.02	0.0000	0.02	0.01	0.0200	0.00	0.0050
Year N	4	33	1	33	11	11	0	1	0.2	32	0.1	0.0	0.0	0.0	0.0	33	0.0	0.00	0.01	0.00	0.01	0.00	0.0050	
4	Vol/NH3 Pig	YES	0.2	0.1	NON	100.00	SBA	1.000	YES	0.1	Pig	0.65	0.0	0.0	0.0	0.0	0.0	0.00	0.0000	0.00	0.00	0.00	0.0100	
	N leach	Deep	1.127	0.1	ORG	1.00	1.000	0.483	0.0	0.1	Pork	3	0.0	0.0	0.0	0.0	0.0	0.00	0.0000	0.00	0.00	0.00	0.0050	
Year N	5	33	1	33	11	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	0.00	0.0000	
5	Vol/NH3 Pig	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Pig	0.66	0.0	0.0	0.0	0.0	0.0	0.00	0.0000	0.00	0.00	0.00	0.0000	
	N leach	Deep	1.127	0.0	ORG	1.00	1.000	0.483	0.0															

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

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

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED									
Year 1-10 N leach	ACCORDING TO FIRST YEAR					IPCC 1996					IPCC 2006					TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3				
	TOTAL					0.0267					0.0197					TOTAL N AMOUNTS IN KG AND % LEACHED				
	0.03556					0.0261					100.0					100.0				

N2O-N in food/beverage/fuel/other

Year	N	1	100.0	100.0	0	100	119	0	1	97.8	42	64.3	32.8	0.0	0.0	10.8	41	31.5	1.74	2.67	1.57	1.96
1	Vol/NH3 N leach	YES	1.022	1.000	2.2	NON	100.00	WWHB	1.000	YES	22.7	Poultry	0.84	0.0	0.0	0.0	Poultry	3.1	0.05	0.0125	0.05	1.48
Year 2	Vol/NH3 N leach	YES	0.867	1.000	27.8	ORG	1.00	1.000	0.343	10.8	22.7	Meat	4	0.0	0.0	10.6	Liquid	3.1	0.57	0.0010	0.17	0.0050
Year 3	Vol/NH3 N leach	YES	0.867	1.000	5.0	ORG	1.00	1.000	0	1	20.8	Meat	4	0.0	0.0	2.3	Liquid	5.7	0.29	0.55	0.26	0.39
Year 4	Vol/NH3 N leach	YES	0.867	1.000	1.3	NON	100.00	WWH	1.000	YES	6.9	Poultry	0.67	0.0	0.0	2.3	Liquid	0.6	0.08	0.0125	0.08	0.0100
Year 5	Vol/NH3 N leach	YES	0.867	1.000	0.9	ORG	1.00	1.000	0.443	2.3	6.9	Meat	4	0.0	0.0	0.4	Liquid	0.0	0.17	0.0010	0.05	0.0050
Year 6	Vol/NH3 N leach	YES	0.867	1.000	0.2	NON	100.00	SBA	1.000	YES	0.2	Poultry	0.65	0.0	0.0	0.1	Liquid	0.1	0.01	0.0125	0.01	0.0100
Year 7	Vol/NH3 N leach	YES	0.867	1.000	0.2	ORG	1.00	1.000	0.483	0.1	0.2	Meat	4	0.0	0.0	0.1	Liquid	0.0	0.01	0.0010	0.00	0.0050
Year 8	Vol/NH3 N leach	YES	0.867	1.000	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050
Year 9	Vol/NH3 N leach	YES	0.867	1.000	0.0	ORG	1.00	1.000	0.483	0.0	0.0	Meat	4	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050
Year 10	Vol/NH3 N leach	YES	0.867	1.000	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.84	0.0	0.0	0.0	Liquid	0.0	0.00	0.0125	0.00	0.0100
Year 11	Vol/NH3 N leach	YES	0.867	1.000	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Meat	4	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050
Year 12	Vol/NH3 N leach	YES	0.867	1.000	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67	0.0	0.0	0.0	Liquid	0.0	0.00	0.0125	0.00	0.0100
Year 13	Vol/NH3 N leach	YES	0.867	1.000	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Meat	4	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050
Year 14	Vol/NH3 N leach	YES	0.867	1.000	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	Liquid	0.0	0.00	0.0125	0.00	0.0100
Year 15	Vol/NH3 N leach	YES	0.867	1.000	0.0	ORG	1.00	1.000	0.483	0.0	0.0	Meat	4	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050
Year 16	Vol/NH3 N leach	YES	0.867	1.000	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Liquid	0.0	0.00	0.0125	0.00	0.0100
Year 17	Vol/NH3 N leach	YES	0.867	1.000	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Meat	4	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050
Year 18	Vol/NH3 N leach	YES	0.867	1.000	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67	0.0	0.0	0.0	Liquid	0.0	0.00	0.0125	0.00	0.0100
Year 19	Vol/NH3 N leach	YES	0.867	1.000	0.0	ORG	1.00	1.000	0.443	0.0	0.0	Meat	4	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050
Year 20	Vol/NH3 N leach	YES	0.867	1.000	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	Liquid	0.0	0.00	0.0125	0.00	0.0100
Year 21	Vol/NH3 N leach	YES	0.867	1.000	0.0	ORG	1.00	1.000	0.483	0.0	0.0	Meat	4	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050
Year 22	Vol/NH3 N leach	YES	0.867	1.000	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Liquid	0.0	0.00	0.0125	0.00	0.0100
Year 23	Vol/NH3 N leach	YES	0.867	1.000	0.0	ORG	1.00	1.000	0.483	0.0	0.0	Meat	4	0.0	0.0	0.0	Liquid	0.0	0.00	0.0010	0.00	0.0050

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

Area with crop, ha 0.64 0.15 0.03 0.01 0.00 0.00 0.00 0.00 0.00 0.82 1.29 Note 50

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

Total IPCC and non IPCC N2O 2.67
 Total anthropogenic 2.67
 Total including natural 3.49
 Note 51 1.96 Note 51 1.96 Note 51 2.78 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CEREAL TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND FUEL/OTHER/REMOVED POULTRY MEAT
 AND CONTINUING WITH POULTRY DEEP LITTER TO PRODUCE WINTER WHEAT FOR MANURE HANDLING N-AMOUNTS IN KG AND % LEACHED TO PRODUCE WINTER WHEAT FOR

Year	Fertilizer/manure #	Store 1/0	Amounts Store	Field 1/0	Or-ganic 1/0	Nnorm propor-tion, %	Crop #	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use #	Fodder: Uses #21-61	Food Fed	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure # Name	Final N-amounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total	
Total N	1	1	100.0	100.0	0	100	119	0	1	97.8	42	64.3	32.8	0.0	0.0	10.8	43	47.4	1.94	2.90	1.36	1.81
Year N NH3	YES	0.0	0.0	2.2	NON	100.00	WWHB	1.000	YES	22.7	Poultry	0.84	0.0	0.0	0.0	0.0	Poultry	12.6	0.15	0.0125	0.15	
1-10 N leach	1.022	1.000	1.000	0.343	ORG	1.00	1.000	0.343	10.8	22.7	Meat	4	10.6	0.0	0.0	10.6	Deep	0.0	0.57	0.0200	0.17	
Year 2	43	1	19.1	15.8	0	100	11	1.000	YES	11.8	42	4.6	2.3	0.0	0.0	1.3	43	2.2	0.19	0.0200	0.14	
N leach	Deep	0.600	1.013	3.9	NON	100.00	WWH	1.000	YES	6.0	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	0.9	0.08	0.0125	0.08	
Year 3	43	1	1.4	1.1	0	100	11	1.000	YES	0.8	42	0.3	0.2	0.0	0.0	0.1	43	0.2	0.01	0.03	0.01	
N leach	Deep	0.600	1.013	0.3	NON	100.00	WWH	1.000	YES	0.4	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	0.1	0.01	0.0125	0.01	
Year 4	43	1	0.1	0.1	0	100	1	1.000	YES	0.1	42	0.0	0.0	0.0	0.0	0.1	43	0.0	0.01	0.0200	0.00	
N leach	Deep	0.600	1.013	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	0.00	0.0125	0.00	
Year 5	43	1	0.0	0.0	0	100	10	1.000	YES	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.0200	0.00	
N leach	Deep	0.600	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	0.0	Poultry	0.0	0.00	0.0125	0.00	
Year 6	43	1	0.0	0.0	0	100	119	1.000	YES	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.0200	0.00	
N leach	Deep	0.600	1.013	0.0	NON	100.00	WWH	1.000	YES	0.0	Meat	4	0.0	0.0	0.0	0.0	Deep	0.0	0.00	0.0200	0.00	
Year 7	43	1	0.0	0.0	0	100	11	1.000	YES	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.0200	0.00	
N leach	Deep	0.600	1.013	0.0	NON	100.00	WWH	1.000	YES	0.0	Meat	4	0.0	0.0	0.0	0.0	Deep	0.0	0.00	0.0200	0.00	
Year 8	43	1	0.0	0.0	0	100	11	1.000	YES	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.0200	0.00	
N leach	Deep	0.600	1.013	0.0	NON	100.00	WWH	1.000	YES	0.0	Meat	4	0.0	0.0	0.0	0.0	Deep	0.0	0.00	0.0200	0.00	
Year 9	43	1	0.0	0.0	0	100	1	1.000	YES	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.0200	0.00	
N leach	Deep	0.600	1.013	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	0.00	0.0125	0.00	
Year 10	43	1	0.0	0.0	0	100	10	1.000	YES	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0	0.00	0.0200	0.00	
N leach	Deep	0.600	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Meat	4	0.0	0.0	0.0	0.0	Deep	0.0	0.00	0.0125	0.00	
Total	0.600	1.013	0.642	0.0	0.0	100.00	0.642	0.0	0.0	0.0	Meat	4	0.0	0.0	0.0	0.0	Deep	0.0	0.00	0.0200	0.00	

N2O-N in food/beverage/fuel/other

Year	N	Vol/NH3	N	leach	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Total/year 1
Year 1	1	1	100.0	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	1.10
Year 2	43	1	19.1	15.8	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 3	43	1	1.4	1.1	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 4	43	1	0.1	0.1	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 5	43	1	0.0	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 6	43	1	0.0	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 7	43	1	0.0	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 8	43	1	0.0	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 9	43	1	0.0	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 10	43	1	0.0	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.600	1.013	0.642	0.0	1.00	0.64	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	1.10

Area with crop, ha

Year	Area with crop, ha	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total			
Year 1	1	1	100.0	0.0	0	1	97.8	42	64.3	32.8	0.0	0.0	10.8	43	31.5
Year 2	43	1	19.1	15.8	0	1	11.8	42	4.6	2.3	0.0	0.0	1.3	43	2.2
Year 3	43	1	1.4	1.1	0	1	0.8	42	0.3	0.2	0.0	0.0	0.1	43	0.2
Year 4	43	1	0.1	0.1	0	1	0.1	42	0.0	0.0	0.0	0.0	0.0	43	0.0
Year 5	43	1	0.0	0.0	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0
Year 6	43	1	0.0	0.0	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0
Year 7	43	1	0.0	0.0	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0
Year 8	43	1	0.0	0.0	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0
Year 9	43	1	0.0	0.0	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0
Year 10	43	1	0.0	0.0	0	1	0.0	42	0.0	0.0	0.0	0.0	0.0	43	0.0
Total	0.600	1.013	0.642	0.0	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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

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

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

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED											
Year N NH3	1	100.0	100.0	0	100	119	0	1	97.8	42	64.3	32.8	0.0	0.0	10.8	44	31.5	52.8	2.56	3.67	2.23	2.60
1-10 N leach	1.022	1.000	2.2	NON	100.00	WWHB	1.000	YES	22.7	Poultry	0.84	0.0	0.0	0.0	0.0	Poultry	0.0	4.8	0.05	0.05	0.05	0.05
	44	1	31.5	0	100	11	0	1	22.7	Meat	4	4.6	0.0	0.0	3.2	44	4.5	42.5	1.06	1.06	0.32	0.32
	44	1	31.5	0	100	11	0	1	29.3	42	9.1	4.6	0.0	0.0	3.2	44	4.5	42.5	1.06	1.06	0.32	0.32
	44	1	31.5	0	100	11	0	1	16.9	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	16.9	Meat	4	0.7	0.0	0.0	3.2	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	4.2	42	1.3	0.7	0.0	0.0	0.5	44	0.6	42.5	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	2.4	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	2.4	Meat	4	0.1	0.0	0.0	0.4	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.6	42	0.2	0.1	0.0	0.0	0.1	44	0.1	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.4	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.4	Meat	4	0.0	0.0	0.0	0.1	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.1	42	0.0	0.0	0.0	0.0	0.0	44	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Poultry	0.66	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	42	0.84	0.0	0.0	0.0	0.0	44	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Poultry	0.84	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	42	0.67	0.0	0.0	0.0	0.0	44	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	42	0.65	0.0	0.0	0.0	0.0	44	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	42	4	0.0	0.0	0.0	0.0	44	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Poultry	0.66	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	42	0.66	0.0	0.0	0.0	0.0	44	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	42	4	0.0	0.0	0.0	0.0	44	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00

N2O-N in food/beverage/fuel/other

Year N	1	100.0	100.0	0	100	119	0	1	97.8	42	64.3	32.8	0.0	0.0	10.8	44	31.5	52.8	2.56	3.67	2.23	2.60
1	1	100.0	100.0	0	100	119	0	1	22.7	Poultry	0.84	0.0	0.0	0.0	0.0	Poultry	0.0	4.8	0.05	0.05	0.05	0.05
	1.022	1.000	2.2	NON	100.00	WWHB	1.000	YES	22.7	Meat	4	4.6	0.0	0.0	3.2	44	4.5	42.5	1.06	1.06	0.32	0.32
	44	1	31.5	0	100	11	0	1	29.3	42	9.1	4.6	0.0	0.0	3.2	44	4.5	42.5	1.06	1.06	0.32	0.32
	44	1	31.5	0	100	11	0	1	16.9	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	16.9	Meat	4	0.7	0.0	0.0	3.2	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	4.2	42	1.3	0.7	0.0	0.0	0.5	44	0.6	42.5	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	2.4	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	2.4	Meat	4	0.1	0.0	0.0	0.4	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.6	42	0.2	0.1	0.0	0.0	0.1	44	0.1	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.4	Poultry	0.65	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.4	Meat	4	0.0	0.0	0.0	0.1	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.1	42	0.0	0.0	0.0	0.0	0.0	44	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Poultry	0.66	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	42	0.84	0.0	0.0	0.0	0.0	44	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Poultry	0.84	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	42	0.67	0.0	0.0	0.0	0.0	44	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Poultry	0.67	0.0	0.0	0.0	0.0	Poultry	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	Meat	4	0.0	0.0	0.0	0.0	Scrap	0.0	100.0	0.00	0.00	0.00	0.00
	44	1	31.5	0	100	11	0	1	0.0	42	0.65	0.0	0.0	0.0	0.0	44	0.0	100.0	0.00			

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

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

Total N	RATIO OF N2O-N TO N IN FIRST CROP TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED																			
Year N NH3	100.0	0	100	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	41	48.8	37.2	2.03	3.23	1.92	2.45
1-10 N leach	0.0	2.2	NON	100.00	WWHB	1.000	YES	1.000	0.84	0.0	0.0	0.0	0.0	0.0	4.9	25.1	0.25	0.25	0.25	0.28
	1.022	1.000	ORG	1.00	1.000	0.343	10.8	22.7	4	10.6	Liquid				4.9	37.7	0.94	0.94	0.28	
Year 1	41	43.0	0	100	11	0	1	32.3	43	4.3	0.0	0.0	3.6	41	13.6	37.7	2.03	3.23	1.92	2.45
2	Poultry YES	0.9	10.8	NON	100.00	WWH	1.000	YES	0.67	0.0	0.0	0.0	0.0	0.0	1.4	100.0	0.00	0.00	0.00	0.00
Year 2	Liquid	0.867	1.000	ORG	1.00	1.000	3.6	10.7	4	3.5	Liquid				0.0	100.0	0.00	0.00	0.00	0.00
3	Poultry YES	0.2	12.0	0	100	11	0	9.0	43	1.2	0.0	0.0	1.0	41	3.8	37.2	2.03	3.23	1.92	2.45
Year 3	Liquid	0.867	1.000	ORG	1.00	1.000	1.0	3.0	0.67	0.0	0.0	0.0	0.0	0.0	0.4	25.1	0.25	0.25	0.28	
4	Poultry YES	0.1	3.4	0	100	1	0	2.5	43	1.3	0.0	0.0	0.3	41	1.0	100.0	0.00	0.00	0.00	0.00
Year 4	Liquid	0.867	1.000	ORG	1.00	1.000	0.3	0.9	4	0.65	0.0	0.0	0.2	0.0	0.1	37.2	2.03	3.23	1.92	2.45
5	Poultry YES	0.0	0.8	NON	100.00	SBA	1.000	YES	4	0.65	0.0	0.0	0.0	0.0	0.1	25.1	0.25	0.25	0.28	
Year 5	Liquid	0.867	1.000	ORG	1.00	1.000	0.1	0.7	43	0.3	0.0	0.0	0.1	41	0.3	37.7	0.94	0.94	0.28	
6	Poultry YES	0.0	0.2	NON	100.00	WBA	1.000	YES	0.66	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.00	0.00	0.00	0.00
Year 6	Liquid	0.867	1.000	ORG	1.00	1.000	0.1	0.2	4	0.66	0.0	0.0	0.1	0.0	0.0	100.0	0.00	0.00	0.00	0.00
7	Poultry YES	0.0	0.2	0	100	119	0	0.2	43	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.00	0.00	0.00	0.00
Year 7	Liquid	0.867	1.000	ORG	1.00	1.000	0.0	0.1	43	0.84	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
8	Poultry YES	0.0	0.1	NON	100.00	WWHB	1.000	YES	0.84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Year 8	Liquid	0.867	1.000	ORG	1.00	1.000	0.0	0.1	4	0.84	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
9	Poultry YES	0.0	0.1	0	100	11	0	0.0	43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Year 9	Liquid	0.867	1.000	ORG	1.00	1.000	0.0	0.0	43	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
10	Poultry YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
Year 10	Liquid	0.867	1.000	ORG	1.00	1.000	0.0	0.0	4	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00

N2O-N in food/beverage/fuel/other 0.0867

Year	N	1	100.0	0	100	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	41	48.8	1.40	2.04	1.33	1.57
1	Vol/NH3	N	YES	2.2	NON	100.00	WWHB	1.000	YES	1.000	0.84	0.0	0.0	0.0	0.0	Poultry	4.9	0.07	0.0125	0.07	0.1000
	N leach	1.022	1.000	ORG	1.00	1.000	0.343	10.8	22.7	4	10.6	Liquid					4.9	0.57	0.0010	0.17	0.0050
Year 2	41	43.0	0	100	11	0	1	32.3	43	4.3	0.0	0.0	3.6	41	13.6	0.43	0.43	0.46	0.86	0.43	0.64
2	Vol/NH3	Poultry YES	0.9	10.8	NON	100.00	WWH	1.000	YES	1.000	0.67	0.0	0.0	0.0	0.0	Poultry	1.4	0.13	0.0125	0.13	0.0100
Year 3	Liquid	0.867	1.000	ORG	1.00	1.000	3.6	10.7	4	3.5	Liquid					0.0	0.08	0.0050	0.08	0.0050	
3	Vol/NH3	Poultry YES	0.2	12.0	0	100	11	0	9.0	43	5.0	0.0	0.0	1.0	41	3.8	0.12	0.13	0.24	0.12	0.18
Year 4	Liquid	0.867	1.000	ORG	1.00	1.000	1.0	3.0	0.67	0.0	0.0	0.0	0.0	0.0	0.4	0.04	0.04	0.0125	0.04	0.0100	
4	Vol/NH3	Poultry YES	0.1	3.4	0	100	1	0	2.5	43	1.3	0.0	0.0	0.3	41	1.0	0.02	0.08	0.07	0.02	0.0050
Year 5	Liquid	0.867	1.000	ORG	1.00	1.000	0.3	0.9	43	0.65	0.0	0.0	0.0	0.0	0.0	0.1	0.01	0.0125	0.01	0.0100	
5	Vol/NH3	Poultry YES	0.0	0.8	NON	100.00	SBA	1.000	YES	1.000	4	0.0	0.0	0.0	0.0	0.0	0.00	0.02	0.02	0.01	0.0050
Year 6	Liquid	0.867	1.000	ORG	1.00	1.000	0.1	0.7	43	0.66	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.02	0.01	0.02	0.01
6	Vol/NH3	Poultry YES	0.0	0.2	NON	100.00	WBA	1.000	YES	1.000	0.66	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
Year 7	Liquid	0.867	1.000	ORG	1.00	1.000	0.1	0.2	43	4	0.66	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
7	Vol/NH3	Poultry YES	0.0	0.2	0	100	119	0	0.2	43	0.1	0.0	0.0	0.0	0.0	0.1	0.00	0.00	0.00	0.00	0.00
Year 8	Liquid	0.867	1.000	ORG	1.00	1.000	0.0	0.1	43	0.84	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
8	Vol/NH3	Poultry YES	0.0	0.1	NON	100.00	WWHB	1.000	YES	1.000	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
Year 9	Liquid	0.867	1.000	ORG	1.00	1.000	0.0	0.0	43	4	0.84	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
9	Vol/NH3	Poultry YES	0.0	0.0	0	100	11	0	0.0	43	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
Year 10	Liquid	0.867	1.000	ORG	1.00	1.000	0.0	0.0	43	0.67	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
10	Vol/NH3	Poultry YES	0.0	0.0	NON	100.00	WBA	1.000	YES	1.000	0.66	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00
Year 10	Liquid	0.867	1.000	ORG	1.00	1.000	0.0	0.0	43	4	0.66	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00

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

Area with crop, ha 0.64 0.23 0.06 0.02 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.96 1.52

Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha: 0.64 0.23 0.06 0.02 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.96 Total including natural 4.19
 Total IPCC and non IPCC N2O 3.23
 Note 43 Note 43 Note 44 Note 44 Note 44 Note 45 Note 45 Note 46 Note 47 Note 48 Note 48 Note 49 Note 49 Note 47 Note 48 Note 48 Note 49 Note 47 Note 48 Note 48 Note 49 Note 50 Note 51 Note 51 Note 51 Note 51

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

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

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED										
Year 1-10 N leach	100.0	0.0	100.0	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	42	48.8	33.4	33.4	2.24	3.39	1.67	2.26
	2.2	NON	100.00	WWHB	1.000	YES	22.7	Poultry	0.84				0.0	Poultry	12.2	34.1	34.1	0.34	0.34	0.34	0.34
	1.022	ORG	1.00	1.000	0.343	10.8	22.7	Eggs	4			10.6	Sep	0.0	0.0	32.5	32.5	0.81	0.81	0.24	0.24
	42	1	36.6	11	0	1	23.3	43	13.0	3.1	0.0	0.0	2.6	42	9.9	32.5	32.5	0.81	0.81	0.24	0.24
	Poltry	YES	5.5	1.000	1.000	YES	7.8	Poultry	0.67				0.0	Poultry	2.5	100.0	100.0	0.81	0.81	0.24	0.24
	1.000	ORG	1.00	1.000	0.443	2.6	7.8	Eggs	4			2.5	Sep	0.0	0.0	100.0	100.0	0.81	0.81	0.24	0.24
	42	1	7.4	11	0	1	4.7	43	2.6	0.6	0.0	0.0	0.5	42	2.0	100.0	100.0	0.81	0.81	0.24	0.24
	1.000	ORG	1.00	1.000	1.000	YES	1.6	Poultry	0.67				0.0	Poultry	0.5	0.0	0.0	0.81	0.81	0.24	0.24
	1.1	1.6	NON	100.00	WWH	1.000	YES	1.6	Poultry	0.67			0.5	Sep	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	1.000	ORG	1.00	1.000	0.443	0.5	1.6	Eggs	4			0.5	Sep	0.0	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	1.5	1.3	0	100	1	0	1.0	43	0.5	0.1	0.0	0.0	0.1	42	0.4	0.0	0.0	0.81	0.81	0.24	0.24
	0.2	0.3	NON	100.00	SBA	1.000	YES	0.4	Poultry	0.65			0.0	Poultry	0.1	0.0	0.0	0.81	0.81	0.24	0.24
	1.000	ORG	1.00	1.000	0.483	0.1	0.4	Eggs	4			0.1	Sep	0.0	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	0.3	0.2	0	100	10	0	0.2	43	0.1	0.0	0.0	0.0	0.0	42	0.1	0.0	0.0	0.81	0.81	0.24	0.24
	0.0	0.1	NON	100.00	WBA	1.000	YES	0.1	Poultry	0.66			0.0	Poultry	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	1.000	ORG	1.00	1.000	0.483	0.0	0.1	Eggs	4			0.0	Sep	0.0	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	0.1	0.0	0	100	11	0	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.84			0.0	Poultry	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	1.000	ORG	1.00	1.000	0.443	0.0	0.0	Eggs	4			0.0	Sep	0.0	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	0.0	0.0	0	100	11	0	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.67			0.0	Poultry	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	1.000	ORG	1.00	1.000	0.443	0.0	0.0	Eggs	4			0.0	Sep	0.0	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	0.0	0.0	0	100	1	0	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Poultry	0.65			0.0	Poultry	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	1.000	ORG	1.00	1.000	0.483	0.0	0.0	Eggs	4			0.0	Sep	0.0	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	0.0	0.0	0	100	10	0	0.0	43	0.0	0.0	0.0	0.0	0.0	42	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66			0.0	Poultry	0.0	0.0	0.0	0.81	0.81	0.24	0.24
	1.000	ORG	1.00	1.000	0.483	0.0	0.0	Eggs	4			0.0	Sep	0.0	0.0	0.0	0.0	0.81	0.81	0.24	0.24

N2O-N in food/beverage/fuel/other

Year 1	Vol/NH3 N leach	1	100.0	0.0	100.0	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	42	48.8	33.4	33.4	2.24	3.39	1.67	2.26
Year 2	Vol/NH3 N leach	1	100.0	0.0	100.0	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	42	48.8	33.4	33.4	2.24	3.39	1.67	2.26
Year 3	Vol/NH3 N leach	1	100.0	0.0	100.0	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	42	48.8	33.4	33.4	2.24	3.39	1.67	2.26
Year 4	Vol/NH3 N leach	1	100.0	0.0	100.0	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	42	48.8	33.4	33.4	2.24	3.39	1.67	2.26
Year 5	Vol/NH3 N leach	1	100.0	0.0	100.0	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	42	48.8	33.4	33.4	2.24	3.39	1.67	2.26
Year 6	Vol/NH3 N leach	1	100.0	0.0	100.0	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	42	48.8	33.4	33.4	2.24	3.39	1.67	2.26
Year 7	Vol/NH3 N leach	1	100.0	0.0	100.0	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	42	48.8	33.4	33.4	2.24	3.39	1.67	2.26
Year 8	Vol/NH3 N leach	1	100.0	0.0	100.0	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	42	48.8	33.4	33.4	2.24	3.39	1.67	2.26
Year 9	Vol/NH3 N leach	1	100.0	0.0	100.0	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	42	48.8	33.4	33.4	2.24	3.39	1.67	2.26
Year 10	Vol/NH3 N leach	1	100.0	0.0	100.0	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	42	48.8	33.4	33.4	2.24	3.39	1.67	2.26
Year	Vol/NH3 N leach	1	100.0	0.0	100.0	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	42	48.8	33.4	33.4	2.24	3.39	1.67	2.26
Area with crop, ha																							

Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1
 0.64 0.17 0.03 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.85 1.33
 Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha: 0.00
 Total IPCC and non IPCC N2O 3.39
 Total anthropogenic 3.39
 Total including natural 4.24
 Note 51 2.26 Note 51 2.26 Note 51 3.10 Note 51

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND FUEL/ OTHER POULTRY EGGS
 AND CONTINUING WITH POULTRY DEEP LITTER TO PRODUCE WINTER WHEAT FOR POULTRY EGGS

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

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED												
Year N NH3	1	1	100.0	100.0	0	100	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	43	30.5	30.4	2.30	3.49	1.51	2.13
1-10 N leach	1.022	1.000	0.0	0.0	2.2	NON	100.00	WWHB	1.000	YES	22.7	Poultry	0.84	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	43	1	29.6	5.2	24.5	0	100	11	0.343	10.8	4	7.1	1.7	0.0	0.0	2.0	43	33.1	33.0	0.83	0.83	0.25	0.25
	Poltry	YES	5.2	5.2	6.1	NON	100.00	WWH	1.000	YES	9.2	Poultry	0.67	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	Deep	0.600	1.013	1.013	2.7	0	100	11	0.614	2.0	4	0.8	0.2	0.0	0.0	0.2	43	30.5	30.4	2.30	3.49	1.51	2.13
	43	1	3.3	0.6	0.7	NON	100.00	WWH	1.000	YES	1.0	Poultry	0.67	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Poltry	YES	0.6	0.6	0.3	0	100	1	0.614	0.2	4	0.1	0.0	0.0	0.0	0.2	43	33.1	33.0	0.83	0.83	0.25	0.25
	Deep	0.600	1.013	1.013	0.1	NON	100.00	SBA	1.000	YES	0.1	Poultry	0.65	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.4	0.1	0.0	0	100	10	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.1	0.1	0.0	0	100	10	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.614	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WWH	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.614	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.65	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES	0.0	0.0	0.0	0	100	11	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	36.8	36.7	0.37	0.37	0.37	0.37
	Deep	0.600	1.013	1.013	0.0	NON	100.00	WBA	1.000	YES	0.0	Poultry	0.66	0.0	0.0	0.0	Poultry	100.4	100.0	0.00	0.00	0.00	0.00
	43	1	0.0	0.0	0.0	0	100	11	0.642	0.0	4	0.0	0.0	0.0	0.0	0.0	43	30.5	30.4	2.30	3.49	1.51	2.13
	Poltry	YES																					

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

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

Total N	RATIO OF N2O-N TO N IN FIRST CROP													TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED												
Year N NH3	1	100.0	100.0	0	100	119	0	1	97.8	43	64.3	15.5	0.0	0.0	10.8	44	48.8	37.1	37.1	3.41	4.88	3.02	3.51			
1-10 N leach	1.022	1.000	2.2	NON	100.00	WWHB	1.000	YES	22.7	Poultry	0.84				0.0	Poultry	0.0	6.6	6.6	0.07	0.07	0.07	0.07			
	44	1	48.8	ORG	1.00	1.000	0.343	10.8	22.7	Eggs	4				10.6	Scrap	0.0	56.4	56.4	1.41	1.41	0.42	0.42			
	44	1	48.8	ORG	0	100	11	0	45.4	43	14.1	3.4	0.0	0.0	5.0	44	10.7	100.0	100.0	0.00	0.00	0.03	0.03			
	44	1	10.7	ORG	1.00	1.000	0.689	5.0	26.2	Poultry	0.67				0.0	Poultry	0.0	6.6	6.6	0.00	0.00	0.20	0.20			
	44	1	10.7	ORG	1.00	1.000	0.689	5.0	26.2	Eggs	4	0.7	0.0	0.0	4.9	Scrap	0.0	56.4	56.4	0.00	0.00	0.16	0.16			
	44	1	10.7	ORG	1.00	1.000	0.689	5.0	26.2	Eggs	4	0.7	0.0	0.0	4.9	Scrap	0.0	56.4	56.4	0.00	0.00	0.16	0.16			
	44	1	2.4	ORG	1.00	1.000	0.689	1.1	5.8	Eggs	4	0.2	0.0	0.0	1.1	44	2.4	100.0	100.0	0.00	0.00	0.04	0.04			
	44	1	2.4	ORG	1.00	1.000	0.689	1.1	5.8	Eggs	4	0.2	0.0	0.0	1.1	44	2.4	100.0	100.0	0.00	0.00	0.04	0.04			
	44	1	0.5	ORG	1.00	1.000	0.711	0.3	1.3	Poultry	0.65				0.0	Poultry	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.5	ORG	1.00	1.000	0.711	0.3	1.3	Eggs	4	0.0	0.0	0.0	0.2	Scrap	0.0	0.0	0.0	0.00	0.00	0.01	0.01			
	44	1	0.0	ORG	1.00	1.000	0.712	0.1	0.3	Poultry	0.66				0.0	Poultry	0.0	0.0	0.0	0.00	0.00	0.01	0.01			
	44	1	0.0	ORG	1.00	1.000	0.712	0.1	0.3	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.01	0.01			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Poultry	0.84				0.0	Poultry	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			
	44	1	0.0	ORG	1.00	1.000	0.689	0.0	0.1	Eggs	4	0.0	0.0	0.0	0.0	Scrap	0.0	0.0	0.0	0.00	0.00	0.00	0.00			

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

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

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED													
Year N NH3	1	1	100.0	100.0	0	100	119	0	1	97.8	51	64.3	9.1	0.0	0.0	10.8	53	55.1	2.29	2.96	3.86	5.59	2.37	2.99
1-10 N leach	1.022	1.000	0.0	2.2	NON	100.00	WWHB	1.000	YES	22.7	Sheep	0.84				0.0	Sheep	8.3	0.10	0.0125	0.14	0.14	0.14	
TOTAL																					1.59	0.48		

N2O-N in food/beverage/fuel/other

Year N	1	1	100.0	100.0	0	100	119	0	1	97.8	51	64.3	9.1	0.0	0.0	10.8	53	55.1	2.29	2.96	3.86	5.59	2.37	2.99
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WWHB	1.000	YES	22.7	Sheep	0.84			0.0	Sheep	8.3	0.10	0.0125	0.14	0.14	0.14	
Year N	53	1	54.5	54.5	0	100	11	0.343	10.8	22.7	Milk/multi	5	5		10.6	Deep	0.0	0.57	0.0200	0.17	0.17	0.17		
2	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	27.4	Sheep	0.67			6.0	53	18.0	1.06	1.77	1.59	0.48		
Year N	53	1	17.8	17.8	0	100	11	0.614	6.0	27.4	Milk/multi	5	5		5.9	Deep	0.0	0.69	0.0200	0.21	0.21	0.21		
3	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	9.0	Sheep	0.67			2.0	53	5.9	0.35	0.58	0.48	0.48		
Year N	53	1	5.8	5.8	0	100	1	0.614	2.0	9.0	Milk/multi	5	5		1.9	Deep	0.0	0.22	0.0200	0.07	0.07	0.07		
4	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	3.1	Sheep	0.65			0.7	53	1.8	0.11	0.19	0.19	0.19		
Year N	53	1	1.8	1.8	0	100	10	0.642	0.7	3.1	Milk/multi	5	5		0.5	Deep	0.3	0.00	0.0125	0.00	0.00	0.00	0.00	0.00
5	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.9	Sheep	0.66			0.2	53	0.5	0.03	0.06	0.06	0.06		
Year N	53	1	0.5	0.5	0	100	119	0.642	0.2	0.9	Milk/multi	5	5		0.1	Deep	0.1	0.00	0.0125	0.00	0.00	0.00	0.00	0.00
6	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWHB	1.000	YES	0.3	Sheep	0.84			0.1	53	0.2	0.01	0.02	0.02	0.02		
Year N	53	1	0.2	0.2	0	100	11	0.614	0.1	0.3	Milk/multi	5	5		0.1	Deep	0.0	0.02	0.0200	0.01	0.01	0.01	0.01	0.01
7	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.1	Sheep	0.67			0.0	53	0.0	0.00	0.0125	0.00	0.00	0.00	0.00
Year N	53	1	0.1	0.1	0	100	11	0.614	0.0	0.1	Milk/multi	5	5		0.0	Deep	0.0	0.00	0.0200	0.00	0.00	0.00	0.00	0.00
8	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	0.0	Sheep	0.67			0.0	53	0.0	0.00	0.0125	0.00	0.00	0.00	0.00
Year N	53	1	0.0	0.0	0	100	10	0.614	0.0	0.0	Milk/multi	5	5		0.0	Deep	0.0	0.00	0.0200	0.00	0.00	0.00	0.00	0.00
9	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Sheep	0.65			0.0	53	0.0	0.00	0.0125	0.00	0.00	0.00	0.00
Year N	53	1	0.0	0.0	0	100	10	0.642	0.0	0.0	Milk/multi	5	5		0.0	Deep	0.0	0.00	0.0200	0.00	0.00	0.00	0.00	0.00
10	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Sheep	0.66			0.0	53	0.0	0.00	0.0125	0.00	0.00	0.00	0.00
Year N	53	1	0.0	0.0	0	100	1000	0.642	0.0	0.0	Milk/multi	5	5		0.0	Deep	0.0	0.00	0.0200	0.00	0.00	0.00	0.00	0.00

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

Area with crop, ha 0.64 0.20 0.07 0.03 0.01 0.00 0.00 0.00 0.00 0.00 0.95 1.49 Note 50

Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha: 1.00
 Total IPCC and non IPCC N2O 5.59
 Total anthropogenic 5.59
 Total including natural 6.54
 Note 51
 Note 51
 Note 51
 Note 51

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

Year Fertilizer/manure Or- Nnorm Crop Crop use & leach Use Fodder: Uses #21-61 Food #72 Food #71/ #72 Fuel/ other #9 Manure Final N a- IPCC 1996 N2O-N emission
 # Store Amounts ganic propor # tion, % Name # Name #71/ #72 #8 #9 # Name mounts Each Total Each Total

Total N	RATIO OF N2O-N TO N IN FIRST CROP										TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED									
Year N NH3	100.0	0	100	119	0	1	97.8	51	64.3	9.1	0.0	0.0	10.8	55.1	30.5	3.76	5.39	1.88	2.42	Note 45
1-10 N leach	0.0	2.2	NON	100.00	WWHB	1.000	YES	1.000	0.84	0.343	10.8	22.7	Sheep	0.0	7.3	0.07	0.025	0.07	0.02	Note 45
TOTAL	0.0406	0.0718	0.0323	0.0174	0.0323	0.0406	0.0174	0.0323	0.0174	0.0323	0.0174	0.0323	0.0174	0.0323	100.0	1.55	0.47	0.47	0.47	Note 45

N2O-N in food/beverage/fuel/other

Year N	1	100.0	0	100	119	0	1	97.8	51	64.3	9.1	0.0	0.0	10.8	55.1	2.46	3.05	1.11	1.30	Note 47
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WWHB	1.000	YES	1.000	0.84	22.7	Sheep	0.0	7.3	0.02	0.0125	0.02	Note 48
Year N	2	1.022	1.000	1.000	1.000	0.343	10.8	22.7	Milk/multi	5	10.6	Graz	0.0	7.3	0.57	0.0200	0.17	0.0000	0.17	Note 49
Year N	2	54	1	55.1	0	1	51.3	51	15.9	2.3	0.0	0.0	5.7	13.7	0.98	1.76	0.58	0.84	Note 47	
Year N	2	Sheep	YES	0.0	3.9	NON	100.00	WWHB	1.000	YES	1.000	0.67	29.7	Sheep	0.0	7.3	0.04	0.0125	0.04	Note 48
Year N	2	Graz	0.484	1.000	ORG	1.00	1.000	29.7	Milk/multi	5	5.5	Graz	0.0	7.3	0.74	0.0200	0.22	0.0000	0.22	Note 49
Year N	3	54	1	13.7	0	1	12.7	51	4.0	0.6	0.0	0.0	1.4	3.4	0.24	0.44	0.14	0.21	Note 47	
Year N	3	Vol/NH3	Sheep	YES	0.0	1.0	NON	100.00	WWHB	1.000	YES	1.4	7.4	Sheep	0.0	7.3	0.01	0.0125	0.01	Note 48
Year N	3	Graz	0.484	1.000	ORG	1.00	1.000	7.4	Milk/multi	5	1.4	Graz	0.0	7.3	0.18	0.0200	0.06	0.0000	0.06	Note 49
Year N	4	54	1	3.4	0	1	3.2	51	0.9	0.1	0.0	0.0	0.4	0.8	0.06	0.11	0.04	0.05	Note 47	
Year N	4	Vol/NH3	Sheep	YES	0.0	0.2	NON	100.00	SBA	1.000	YES	1.9	Sheep	0.0	7.3	0.00	0.0125	0.00	0.0100	Note 48
Year N	4	Graz	0.484	1.000	ORG	1.00	1.000	1.9	Milk/multi	5	0.3	Graz	0.0	7.3	0.05	0.0200	0.01	0.0000	0.01	Note 49
Year N	5	54	1	0.8	0	1	0.7	51	0.2	0.0	0.0	0.0	0.1	0.2	0.01	0.02	0.01	0.01	Note 47	
Year N	5	Vol/NH3	Sheep	YES	0.0	0.1	NON	100.00	WBA	1.000	YES	0.4	Sheep	0.0	7.3	0.00	0.0125	0.00	0.0100	Note 48
Year N	5	Graz	0.484	1.000	ORG	1.00	1.000	0.4	Milk/multi	5	0.1	Graz	0.0	7.3	0.01	0.0200	0.00	0.0000	0.01	Note 49
Year N	6	54	1	0.2	0	1	0.2	51	0.1	0.0	0.0	0.0	0.0	0.0	0.00	0.01	0.00	0.00	Note 47	
Year N	6	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWHB	1.000	YES	0.1	Sheep	0.0	7.3	0.00	0.0125	0.00	0.0100	Note 48
Year N	6	Graz	0.484	1.000	ORG	1.00	1.000	0.1	Milk/multi	5	0.84	Graz	0.0	7.3	0.00	0.0200	0.00	0.0000	0.00	Note 49
Year N	7	54	1	0.0	0	1	0.0	51	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	Note 47	
Year N	7	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWHB	1.000	YES	0.0	Sheep	0.0	7.3	0.00	0.0125	0.00	0.0100	Note 48
Year N	7	Graz	0.484	1.000	ORG	1.00	1.000	0.0	Milk/multi	5	0.67	Graz	0.0	7.3	0.00	0.0200	0.00	0.0000	0.00	Note 49
Year N	8	54	1	0.0	0	1	0.0	51	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	Note 47	
Year N	8	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WWHB	1.000	YES	0.0	Sheep	0.0	7.3	0.00	0.0125	0.00	0.0100	Note 48
Year N	8	Graz	0.484	1.000	ORG	1.00	1.000	0.0	Milk/multi	5	0.67	Graz	0.0	7.3	0.00	0.0200	0.00	0.0000	0.00	Note 49
Year N	9	54	1	0.0	0	1	0.0	51	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	Note 47	
Year N	9	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	0.0	Sheep	0.0	7.3	0.00	0.0125	0.00	0.0100	Note 48
Year N	9	Graz	0.484	1.000	ORG	1.00	1.000	0.0	Milk/multi	5	0.65	Graz	0.0	7.3	0.00	0.0200	0.00	0.0000	0.00	Note 49
Year N	10	54	1	0.0	0	1	0.0	51	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	Note 47	
Year N	10	Vol/NH3	Sheep	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	0.0	Sheep	0.0	7.3	0.00	0.0125	0.00	0.0100	Note 48
Year N	10	Graz	0.484	1.000	ORG	1.00	1.000	0.0	Milk/multi	5	0.66	Graz	0.0	7.3	0.00	0.0200	0.00	0.0000	0.00	Note 49

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

Area with crop, ha 0.64 0.17 0.04 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.86 1.35

Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha: 0.64
 Total IPCC and non IPCC N2O 5.39
 Total anthropogenic 5.39
 Total including natural 6.25
 Note 51 2.42
 Note 51 2.42
 Note 51 3.28

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE Cereal Straw Crop Fuel/ Manure Final N2O-N emission
 AND CONTINUING WITH GOAT DEEP LITTER TO PRODUCE use & #71/ N crop Food/ other handling N a- IPCC 1996
 GOAT MILK/MEAT GOAT MILK/MEAT

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

RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED										23.9	21.7							
Total N	100.0	100.0	0	100	119	0	1	97.8	61	64.3	6.2	0.0	0.0	10.8	63	58.1	3.27	4.83	1.96	2.70
Year N NH3	0.0	2.2	NON	100.00	WWHB	1.000	YES	22.7	Goat	0.84				0.0	Goat	8.7	0.40	0.40	0.40	0.40
1-10 N leach	1.022	1.000	ORG	1.00	1.000	0.343	10.8	22.7	Milk/mea	6				10.6	Deep	0.0	1.16	0.35	0.35	0.35
TOTAL		57.4	48.8	0	100	11	1	36.6	61	14.1	1.4	0.0	0.0	4.0	63	12.8	1.16	0.35	0.35	0.35
RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED										23.9	21.7							
Total N	100.0	100.0	0	100	11	0	1	97.8	61	64.3	6.2	0.0	0.0	10.8	63	58.1	3.27	4.83	1.96	2.70
Year N NH3	0.0	2.2	NON	100.00	WWHB	1.000	YES	22.7	Goat	0.84				0.0	Goat	8.7	0.40	0.40	0.40	0.40
1-10 N leach	1.022	1.000	ORG	1.00	1.000	0.343	10.8	22.7	Milk/mea	6				10.6	Deep	0.0	1.16	0.35	0.35	0.35
TOTAL		57.4	48.8	0	100	11	1	36.6	61	14.1	1.4	0.0	0.0	4.0	63	12.8	1.16	0.35	0.35	0.35

N2O-N in food/beverage/fuel/other

Year	N	1	100.0	100.0	0	100	119	0	1	97.8	61	64.3	6.2	0.0	0.0	10.8	63	58.1	3.27	4.83	1.96	2.70
1	Vol/NH3	N	YES	0.0	2.2	NON	100.00	WWHB	1.000	YES	1.000	0.84				0.0	Goat	8.7	0.40	0.40	0.40	0.40
	N leach	1.022	1.000	ORG	1.00	1.000	0.343	10.8	22.7	Milk/mea	6					10.6	Deep	0.0	1.16	0.35	0.35	0.35
Year	N	63	1	57.4	48.8	0	100	11	1	36.6	61	14.1	1.4	0.0	0.0	4.0	63	12.8	1.41	0.47	0.83	0.100
2	Vol/NH3	Goat	YES	8.6	12.2	NON	100.00	WWH	1.000	YES	1.000	0.67				0.0	Goat	1.9	0.23	0.125	0.23	0.100
	N leach	Deep	0.600	1.162	ORG	1.00	1.000	18.4	Milk/mea	6						4.0	Deep	0.0	0.46	0.200	0.14	0.0050
Year	N	63	1	12.6	10.7	0	100	11	1	8.0	61	3.1	0.3	0.0	0.0	0.9	63	2.8	0.16	0.31	0.10	0.18
3	Vol/NH3	Goat	YES	1.9	2.7	NON	100.00	WWH	1.000	YES	1.000	0.67				0.0	Goat	0.4	0.05	0.125	0.05	0.0100
	N leach	Deep	0.600	1.162	ORG	1.00	1.000	4.0	Milk/mea	6						0.9	Deep	0.0	0.10	0.200	0.03	0.0050
Year	N	63	1	2.8	2.4	0	100	1	1	1.8	61	0.6	0.1	0.0	0.0	0.2	63	0.6	0.03	0.07	0.02	0.04
4	Vol/NH3	Goat	YES	0.4	0.6	NON	100.00	SBA	1.000	YES	1.000	0.65				0.0	Goat	0.1	0.01	0.125	0.01	0.0100
	N leach	Deep	0.600	1.162	ORG	1.00	1.000	0.2	Milk/mea	6						0.2	Deep	0.0	0.02	0.200	0.01	0.0050
Year	N	63	1	0.6	0.5	0	100	10	1	0.4	61	0.1	0.0	0.0	0.0	0.0	63	0.1	0.01	0.01	0.00	0.01
5	Vol/NH3	Goat	YES	0.1	0.1	NON	100.00	WBA	1.000	YES	1.000	0.66				0.0	Goat	0.0	0.00	0.125	0.00	0.0100
	N leach	Deep	0.600	1.162	ORG	1.00	1.000	0.0	Milk/mea	6						0.0	Deep	0.0	0.00	0.200	0.00	0.0050
Year	N	63	1	0.1	0.1	0	100	119	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
6	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	WWHB	1.000	YES	1.000	0.84				0.0	Goat	0.0	0.00	0.125	0.00	0.0100
	N leach	Deep	0.600	1.162	ORG	1.00	1.000	0.0	Milk/mea	6						0.0	Deep	0.0	0.00	0.200	0.00	0.0050
Year	N	63	1	0.0	0.0	0	100	11	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
7	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67				0.0	Goat	0.0	0.00	0.125	0.00	0.0100
	N leach	Deep	0.600	1.162	ORG	1.00	1.000	0.0	Milk/mea	6						0.0	Deep	0.0	0.00	0.200	0.00	0.0050
Year	N	63	1	0.0	0.0	0	100	11	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
8	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	WWH	1.000	YES	1.000	0.67				0.0	Goat	0.0	0.00	0.125	0.00	0.0100
	N leach	Deep	0.600	1.162	ORG	1.00	1.000	0.0	Milk/mea	6						0.0	Deep	0.0	0.00	0.200	0.00	0.0050
Year	N	63	1	0.0	0.0	0	100	1	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
9	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	SBA	1.000	YES	1.000	0.65				0.0	Goat	0.0	0.00	0.125	0.00	0.0100
	N leach	Deep	0.600	1.162	ORG	1.00	1.000	0.0	Milk/mea	6						0.0	Deep	0.0	0.00	0.200	0.00	0.0050
Year	N	63	1	0.0	0.0	0	100	10	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
10	Vol/NH3	Goat	YES	0.0	0.0	NON	100.00	WBA	1.000	YES	1.000	0.66				0.0	Goat	0.0	0.00	0.125	0.00	0.0100
	N leach	Deep	0.600	1.162	ORG	1.00	1.000	0.0	Milk/mea	6						0.0	Deep	0.0	0.00	0.200	0.00	0.0050

Year Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 Year 8 Year 9 Year 10 Total Total/year 1
 Area with crop, ha 0.64 0.18 0.04 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.87 1.37 Note 50
 Possible additional non IPCC N2O-N emissions Value 0.0000 0.00
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00 0.64 0.18 0.04 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.87 Total anthropogenic 4.83
 Natural background emissions, kg N2O-N/ha: 1.00 0.64 0.18 0.04 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.87 Total including natural 5.70
 Total IPCC and non IPCC N2O 4.83
 Note 51 2.70 Note 51 2.70 Note 51 3.58 Note 51

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH NO MANURE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

Year Fertilizer/manure # Store Amounts Store 1/0 Field 1/0 Or-ganic 1/0 Nnorm propor-tion, % Name # Crop use & leach Straw used 1/0 Cereal benefit 1/0 TO PRODUCE TO PRODUCE

RATIO OF N2O-N TO N IN FIRST CROP		TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED															
Year	N leach	100.0	2.2 NON	0	100	119	0	1	97.8	8	0.0	0.0	0.0	64.3	10.8	0	75.1
1	1	100.0	2.2 NON	0	100	119	0	1	97.8	8	0.0	0.0	0.0	64.3	10.8	0	75.1
1-10	N leach	1.022	ORG	1.00	1.000	0.343	10.8	22.7	Food/ beverage	8	0.84	0.0	NONE	0.0	0.0	0.0	2.2
1-10	N leach	0	0.0	0	100	11	0	1	0.0	8	0.0	0.0	0.0	0.0	0.0	0	22.7
2	1	100.0	0.0 NON	100.00	NO	1.000	YES	0.0	0.0	Food/ beverage	0.67	0.0	NONE	0.0	0.0	0.0	100.0
3	1	100.0	ORG	1.00	1.000	0.357	0.0	1	0.0	8	0.0	0.0	0.0	0.0	0.0	0	75.1
4	1	100.0	0.0 NON	100.00	NO	1.000	YES	0.0	0.0	Food/ beverage	0.67	0.0	NONE	0.0	0.0	0.0	2.2
5	1	100.0	ORG	1.00	1.000	0.403	0.0	1	0.0	8	0.66	0.0	NONE	0.0	0.0	0.0	22.7
6	1	100.0	0.0 NON	100.00	NO	1.000	YES	0.0	0.0	Food/ beverage	0.84	0.0	NONE	0.0	0.0	0.0	100.0
7	1	100.0	ORG	1.00	1.000	0.357	0.0	1	0.0	8	0.67	0.0	NONE	0.0	0.0	0.0	75.1
8	1	100.0	0.0 NON	100.00	NO	1.000	YES	0.0	0.0	Food/ beverage	0.67	0.0	NONE	0.0	0.0	0.0	2.2
9	1	100.0	ORG	1.00	1.000	0.403	0.0	1	0.0	8	0.65	0.0	NONE	0.0	0.0	0.0	22.7
10	1	100.0	0.0 NON	100.00	NO	1.000	YES	0.0	0.0	Food/ beverage	0.66	0.0	NONE	0.0	0.0	0.0	100.0
TOTAL																	

N2O-N in food/beverage/fuel/other

Year 1 Vol/INH3 N leach 1.022 1.000 0.343 10.8 22.7 8 0.84 0.0 0.0 0.0 64.3 10.8 0 75.1

Year 2 Vol/INH3 N leach 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 75.1

Year 3 Vol/INH3 N leach 1.000 1.000 0.357 0.0 1 97.8 8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0 75.1

Year 4 Vol/INH3 N leach 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 75.1

Year 5 Vol/INH3 N leach 1.000 1.000 0.404 0.0 1 0.0 8 0.66 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0 75.1

Year 6 Vol/INH3 N leach 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 75.1

Year 7 Vol/INH3 N leach 1.000 1.000 0.357 0.0 1 0.0 8 0.67 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0 75.1

Year 8 Vol/INH3 N leach 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 75.1

Year 9 Vol/INH3 N leach 1.000 1.000 0.403 0.0 1 0.0 8 0.65 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0 75.1

Year 10 Vol/INH3 N leach 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 75.1

Year 11 Vol/INH3 N leach 1.000 1.000 0.404 0.0 1 0.0 8 0.66 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0 75.1

Year 12 Vol/INH3 N leach 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 75.1

Area with crop, ha

Year 1 1.00

Year 2 0.64

Year 3 0.00

Year 4 0.00

Year 5 0.00

Year 6 0.00

Year 7 0.00

Year 8 0.00

Year 9 0.00

Year 10 0.00

Year 11 0.64

Year 12 1.00

Possible additional non IPCC N2O-N emissions

N residues emissions, ratio of N2O-N to N: 0.0000

Increased soil N emissions, kg N2O-N/ha: 0.00

Natural background emissions, kg N2O-N/ha: 1.00

Value

0.0000

0.00

1.00

Total IPCC and non IPCC N2O

1.94

1.94

2.58

Kind of source

Current crops

Total anthropogenic

Total including natural

Total

1.11

0.02

0.17

Total

1.35

0.02

0.57

Total

1.94

0.02

0.17

Total

1.35

0.02

0.57

Total

1.11

0.02

0.17

Total

1.35

0.02

0.57

Total

1.94

0.02

0.17

Total

1.35

0.02

0.57

Total

1.11

0.02

0.17

Total

1.35

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Total

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Total

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0.57

Total

1.11

0.02

0.17

Total

1.35

0.02

0.57

Total

1.94

0.02

0.17

Total

1.35

0.02

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

Year	Fertilizer/manure #	Store 1/0	Amounts Store	Field 1/0	Or-ganic 1/0	Nnorm propor-tion, %	Crop #	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use #	Feeder: Uses #21-61 Fed	Food #72	N crop #71/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996 Each	N2O-N emission IPCC 2006 Total	
Total N																				
Year 1-10	N NH3	N leach	N NH3	N leach	N NH3	N leach	N NH3	N leach	N NH3	N leach	N NH3	N leach	N NH3	N leach	N NH3	N leach	N NH3	N leach	N NH3	N leach
RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO FIRST YEAR TOTAL IPCC 1996 0.0259 0.0174 IPCC 2006 0.0259 0.0174 TOTAL 0.0259 0.0174																				

Year	N2O-N in food/beverage/fuel/other	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total/year 1
Year 1	100.0	0	100	119	0	1	97.8	9	0.0	0.0	0.0	0.0
Year 2	2.2 NON	0	100.00 WWHB	1.000 YES	0.84	22.7 Fuel/	0.0	0.0	0.0	0.0	0.0	0.0
Year 3	1.022	1.000	1.000	0.343	10.8	22.7 other	9	0.0	0.0	0.0	0.0	0.0
Year 4	0	0	100	11	0	1	0.0	9	0.0	0.0	0.0	0.0
Year 5	1.000	1.000	1.000	1.000	0	0	0.0	0.0	0.0	0.0	0.0	0.0
Year 6	0	0	100	11	0	1	0.0	9	0.0	0.0	0.0	0.0
Year 7	1.000	1.000	1.000	1.000	0	0	0.0	0.0	0.0	0.0	0.0	0.0
Year 8	0	0	100	11	0	1	0.0	9	0.0	0.0	0.0	0.0
Year 9	1.000	1.000	1.000	1.000	0	0	0.0	0.0	0.0	0.0	0.0	0.0
Year 10	0	0	100	10	0	1	0.0	9	0.0	0.0	0.0	0.0
Year 11	1.000	1.000	1.000	1.000	0	0	0.0	0.0	0.0	0.0	0.0	0.0

Year	Area with crop, ha	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total/year 1
Year 1	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64
Year 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 5	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64
Year 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 9	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64
Year 10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Year 11	1.00	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.58

Possible additional non IPCC N2O-N emissions Value 0.0000
 N residues emissions, ratio of N2O-N to N: 0.00
 Increased soil N emissions, kg N2O-N/ha: 1.00
 Natural background emissions, kg N2O-N/ha: 1.30
 Total IPCC and non IPCC N2O 1.94
 Total anthropogenic 1.94
 Total including natural 2.58

N CHAIN STARTING WITH N FERTILIZER TO PRODUCE CEREAL TO PRODUCE WINTER WHEAT FOR BIOETHANOL AND N2O-N emission
 AND CONTINUING WITH NO MANURE TO PRODUCE NOTHING FOR WASTE, DUMPED ELSEWHERE WITHOUT LEACHING IPCC 1996 IPCC 2006
 Note 43 Note 43 Note 44 Note 44 Note 44

Year	Fertilizer/manure #	Store 1/0	Amounts Store	Field 1/0	Or-ganic 1/0	Nnorm propor-tion, %	Crop #	Cereal benefit 1/0	Straw used 1/0	Crop use & leach	Use #	Feeder: Uses #21-61	Food Fed	N crop #71/ #72	Food/ bev #8	Fuel/ other #9	Manure handling # Name	Final N a-mounts	N2O-N emission IPCC 1996	N2O-N emission IPCC 2006	Total	Total
RATIO OF N2O-N TO N IN FIRST CROP ACCORDING TO FIRST YEAR TOTAL																						
Total N	1	1	100.0	100.0	0	100	119	0	1	97.8	-1	0.0	0.0	0.0	0.0	0.0	0	75.1	1.35	1.94	1.11	1.30
Year 1-10 N leach	YES	YES	0.0	0.0	2.2 NON	100.00	WWHB	1.000	YES	22.7 Waste	0.84	0.84	0.0	0.0	0.0	10.8	None	2.2	0.02	0.02	0.02	1.30
Year 1-10 N leach	0	1	0.0	0.0	0.0	100	11	0	1	22.7 moved	0	0	0.0	0.0	0.0	10.6	0	2.2	0.57	0.57	0.17	1.30
Year 2 N leach	None	YES	0.0	0.0	0.0 NON	100.00	NO	1.000	YES	0.0 Waste	0.67	0.67	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 3 N leach	0	1	0.0	0.0	0.0	100	11	0	1	0.0 moved	0	0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 3 N leach	None	YES	0.0	0.0	0.0 NON	100.00	NO	1.000	YES	0.0 Waste	0.67	0.67	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 4 N leach	0	1	0.0	0.0	0.0	100	1	0	1	0.0 moved	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 4 N leach	None	YES	0.0	0.0	0.0 NON	100.00	NO	1.000	YES	0.0 Waste	0.65	0.65	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 5 N leach	0	1	0.0	0.0	0.0	100	10	0	1	0.0 moved	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 5 N leach	None	YES	0.0	0.0	0.0 NON	100.00	NO	1.000	YES	0.0 Waste	0.66	0.66	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 6 N leach	0	1	0.0	0.0	0.0	100	119	0	1	0.0 moved	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 6 N leach	None	YES	0.0	0.0	0.0 NON	100.00	NO	1.000	YES	0.0 Waste	0.84	0.84	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 7 N leach	0	1	0.0	0.0	0.0	100	11	0	1	0.0 moved	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 7 N leach	None	YES	0.0	0.0	0.0 NON	100.00	NO	1.000	YES	0.0 Waste	0.67	0.67	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 8 N leach	0	1	0.0	0.0	0.0	100	11	0	1	0.0 moved	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 8 N leach	None	YES	0.0	0.0	0.0 NON	100.00	NO	1.000	YES	0.0 Waste	0.67	0.67	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 9 N leach	0	1	0.0	0.0	0.0	100	1	0	1	0.0 moved	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 9 N leach	None	YES	0.0	0.0	0.0 NON	100.00	NO	1.000	YES	0.0 Waste	0.65	0.65	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 10 N leach	0	1	0.0	0.0	0.0	100	10	0	1	0.0 moved	-1	0.0	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30
Year 10 N leach	None	YES	0.0	0.0	0.0 NON	100.00	NO	1.000	YES	0.0 Waste	0.66	0.66	0.0	0.0	0.0	0.0	0	0.0	0.00	0.00	0.00	1.30

N2O-N in food/beverage/fuel/other 0.1800

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

Possible additional non IPCC N2O-N emissions Value 1.00
 N residues emissions, ratio of N2O-N to N: 0.0000
 Increased soil N emissions, kg N2O-N/ha: 0.00
 Natural background emissions, kg N2O-N/ha: 1.00
 Total IPCC and non IPCC N2O 1.94
 Total anthropogenic 1.94
 Total including natural 2.58
 Note 51 Note 51 Note 51 Note 51

SUMMARY CATTLE DAIRY

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE DAIRY CATTLE DAIRY	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		41.12 40.73	1.93 3.18
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	23.88 23.66	0.24 0.24
1-10 N leach	0.0269	0.0206	TOTAL N AMOUNTS IN KG AND % LEACHED	35.96 35.62	0.27 0.27
TOTAL	0.0423	0.0324	TOTAL N AMOUNTS IN KG AND %	100.97 100.00	

N2O-N/N in food/beverage/fuel/other 0.0773 0.0592 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.99 1.56
 0.99 3.43 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE DAIRY CATTLE DAIRY	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		39.84 39.46	1.88 3.72
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	24.42 24.19	0.24 0.24
1-10 N leach	0.0322	0.0205	TOTAL N AMOUNTS IN KG AND % LEACHED	36.70 36.35	0.28 0.28
TOTAL	0.0496	0.0320	TOTAL N AMOUNTS IN KG AND %	100.96 100.00	

N2O-N/N in food/beverage/fuel/other 0.0934 0.0603 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.94 1.48
 0.94 3.34 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER CATTLE DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE DAIRY CATTLE DAIRY	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		36.04 33.33	1.72 4.11
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	33.66 31.12	0.34 0.34
1-10 N leach	0.0376	0.0205	TOTAL N AMOUNTS IN KG AND % LEACHED	38.44 35.55	0.29 0.29
TOTAL	0.0547	0.0312	TOTAL N AMOUNTS IN KG AND %	108.14 100.00	

N2O-N/N in food/beverage/fuel/other 0.1140 0.0650 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.79 1.25
 0.79 3.14 Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING CATTLE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE DAIRY CATTLE DAIRY	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		39.70 39.70	2.89 4.68
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	6.27 6.27	0.06 0.06
1-10 N leach	0.0380	0.0294	TOTAL N AMOUNTS IN KG AND % LEACHED	54.03 54.03	0.41 0.41
TOTAL	0.0623	0.0447	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other 0.1178 0.0845 Note 46

Area with crop, ha
 Natural background emissions, kg N2O-N/ha:
 Total/year 1
 0.81 1.28
 0.81 4.17 Note 51

SUMMARY CATTLE BEEF

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE BEEF CATTLE BEEF	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		38.84 38.44	2.51
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	25.34 25.08	0.25
1-10 N leach	0.0270	0.0208	TOTAL N AMOUNTS IN KG AND % LEACHED	36.86 36.48	0.28
TOTAL	0.0434	0.0334	TOTAL N AMOUNTS IN KG AND %	101.03 100.00	

N2O-N/N in food/beverage/fuel/other		0.0839	0.0646	Note 46
Area with crop, ha		Total/year 1		
Natural background emissions, kg N2O-N/ha:		1.02 1.60		Note 50
		1.02	3.53	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED CATTLE MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE BEEF CATTLE BEEF	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		37.56 37.18	2.47
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	25.85 25.59	0.26
1-10 N leach	0.0325	0.0207	TOTAL N AMOUNTS IN KG AND % LEACHED	37.61 37.23	0.28
TOTAL	0.0511	0.0329	TOTAL N AMOUNTS IN KG AND %	101.02 100.00	

N2O-N/N in food/beverage/fuel/other		0.1021	0.0658	Note 46
Area with crop, ha		Total/year 1		
Natural background emissions, kg N2O-N/ha:		0.96 1.51		Note 50
		0.79	3.43	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER CATTLE DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE BEEF CATTLE BEEF	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		33.81 31.13	2.40
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	35.46 32.65	0.35
1-10 N leach	0.0382	0.0207	TOTAL N AMOUNTS IN KG AND % LEACHED	39.34 36.22	0.30
TOTAL	0.0564	0.0320	TOTAL N AMOUNTS IN KG AND %	108.61 100.00	

N2O-N/N in food/beverage/fuel/other		0.1252	0.0711	Note 46
Area with crop, ha		Total/year 1		
Natural background emissions, kg N2O-N/ha:		0.80 1.26		Note 50
		0.80	3.21	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING CATTLE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	CATTLE BEEF CATTLE BEEF	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		37.56 37.56	3.48
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	6.51 6.51	0.07
1-10 N leach	0.0386	0.0300	TOTAL N AMOUNTS IN KG AND % LEACHED	55.92 55.92	0.42
TOTAL	0.0645	0.0463	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other		0.1289	0.0926	Note 46
Area with crop, ha		Total/year 1		
Natural background emissions, kg N2O-N/ha:		0.82 1.30		Note 50
		0.82	4.30	Note 51

SUMMARY PIG PORK

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID PIG MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	PIG PORK PIG PORK	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		49.27	1.67
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	20.38	0.20
1-10 N leach	0.0270	0.0202	TOTAL N AMOUNTS IN KG AND % LEACHED	30.35	0.23
TOTAL	0.0371	0.0280	TOTAL N AMOUNTS IN KG AND %	100.00	100.00
N2O-N/N in food/beverage/fuel/other				0.0565	0.0426
Area with crop, ha		Total/year 1		1.41	Note 50
Natural background emissions, kg N2O-N/ha:		0.89		0.89	Note 51
		0.89		3.68	
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED PIG MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	PIG PORK PIG PORK	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		45.23	1.54
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	25.57	0.26
1-10 N leach	0.0311	0.0203	TOTAL N AMOUNTS IN KG AND % LEACHED	30.07	0.23
TOTAL	0.0406	0.0270	TOTAL N AMOUNTS IN KG AND %	100.88	100.00
N2O-N/N in food/beverage/fuel/other				0.0674	0.0447
Area with crop, ha		Total/year 1		1.25	Note 50
Natural background emissions, kg N2O-N/ha:		0.80		0.80	Note 51
		0.80		3.85	
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER PIG DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	PIG PORK PIG PORK	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		43.24	1.45
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	32.70	0.33
1-10 N leach	0.0346	0.0205	TOTAL N AMOUNTS IN KG AND % LEACHED	28.13	0.21
TOTAL	0.0433	0.0265	TOTAL N AMOUNTS IN KG AND %	104.06	100.00
N2O-N/N in food/beverage/fuel/other				0.0751	0.0461
Area with crop, ha		Total/year 1		1.18	Note 50
Natural background emissions, kg N2O-N/ha:		0.75		0.75	Note 51
		0.75		4.00	
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM ROOTING PIGS	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	PIG PORK PIG PORK	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		51.34	2.62
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	5.66	0.06
1-10 N leach	0.0359	0.0273	TOTAL N AMOUNTS IN KG AND % LEACHED	43.00	0.32
TOTAL	0.0547	0.0399	TOTAL N AMOUNTS IN KG AND %	100.00	100.00
N2O-N/N in food/beverage/fuel/other				0.0800	0.0584
Area with crop, ha		Total/year 1		1.34	Note 50
Natural background emissions, kg N2O-N/ha:		0.85		0.85	Note 51
		0.85		4.96	

SUMMARY POULTRY MEAT

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY MEAT POULTRY MEAT	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	53.60	1.57
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	15.20	0.15
1-10 N leach	0.0267	0.0197	TOTAL N AMOUNTS IN KG AND % LEACHED	31.20	0.23
TOTAL	0.0356	0.0261	TOTAL N AMOUNTS IN KG AND %	100.00	100.00
N2O-N/N in food/beverage/fuel/other				0.0499	0.0365
Area with crop, ha		Total/year 1		1.29	Note 46
Natural background emissions, kg N2O-N/ha:		0.82		1.29	Note 50
		0.82		3.49	2.78
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY MEAT POULTRY MEAT	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	50.41	1.44
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	21.10	0.21
1-10 N leach	0.0303	0.0200	TOTAL N AMOUNTS IN KG AND % LEACHED	28.49	0.21
TOTAL	0.0373	0.0249	TOTAL N AMOUNTS IN KG AND %	100.00	100.00
N2O-N/N in food/beverage/fuel/other				0.0556	0.0370
Area with crop, ha		Total/year 1		1.20	Note 46
Natural background emissions, kg N2O-N/ha:		0.76		1.20	Note 50
		0.76		3.56	2.63
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER POULTRY DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY MEAT POULTRY MEAT	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	47.50	1.36
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	23.62	0.24
1-10 N leach	0.0326	0.0203	TOTAL N AMOUNTS IN KG AND % LEACHED	29.15	0.22
TOTAL	0.0387	0.0241	TOTAL N AMOUNTS IN KG AND %	100.26	100.00
N2O-N/N in food/beverage/fuel/other				0.0611	0.0381
Area with crop, ha		Total/year 1		1.10	Note 46
Natural background emissions, kg N2O-N/ha:		0.70		1.10	Note 50
		0.70		3.60	2.51
N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM SCRAPING POULTRY	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY MEAT POULTRY MEAT	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED	52.76	2.23
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	4.77	0.05
1-10 N leach	0.0343	0.0257	TOTAL N AMOUNTS IN KG AND % LEACHED	42.47	0.32
TOTAL	0.0489	0.0346	TOTAL N AMOUNTS IN KG AND %	100.00	100.00
N2O-N/N in food/beverage/fuel/other				0.0696	0.0492
Area with crop, ha		Total/year 1		1.17	Note 46
Natural background emissions, kg N2O-N/ha:		0.75		1.17	Note 50
		0.75		4.42	3.34

SUMMARY POULTRY EGGS

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER LIQUID POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY EGGS POULTRY EGGS	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED			
Year N NH3	IPCC 1996	IPCC 2006			
1-10 N leach	0.0271	0.0209			
TOTAL	0.0430	0.0327			

N2O-N/N in food/beverage/fuel/other					
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.96			Note 50
		0.96			Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SEPARATED POULTRY MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY EGGS POULTRY EGGS	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED			
Year N NH3	IPCC 1996	IPCC 2006			
1-10 N leach	0.0326	0.0214			
TOTAL	0.0452	0.0300			

N2O-N/N in food/beverage/fuel/other					
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.85			Note 50
		0.85			Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER POULTRY DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY EGGS POULTRY EGGS	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED			
Year N NH3	IPCC 1996	IPCC 2006			
1-10 N leach	0.0363	0.0219			
TOTAL	0.0465	0.0283			

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

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM SCRAPING POULTRY	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	POULTRY EGGS POULTRY EGGS	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED			
Year N NH3	IPCC 1996	IPCC 2006			
1-10 N leach	0.0389	0.0303			
TOTAL	0.0650	0.0467			

N2O-N/N in food/beverage/fuel/other					
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.83			Note 50
		0.83			Note 51

SUMMARY SHEEP AND GOATS

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER SHEEP DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	SHEEP MILK/MUTTON SHEEP MILK/MUTTON	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED			
Year N NH3	IPCC 1996	IPCC 2006			
1-10 N leach	0.0395	0.0216			
TOTAL	0.0745	0.0398			
		TOTAL N AMOUNTS IN KG AND % LEACHED			
		TOTAL N AMOUNTS IN KG AND %			

N2O-N/N in food/beverage/fuel/other					
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.95			
		0.95			

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING SHEEP	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	SHEEP MILK/MUTTON SHEEP MILK/MUTTON	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED			
Year N NH3	IPCC 1996	IPCC 2006			
1-10 N leach	0.0406	0.0174			
TOTAL	0.0718	0.0323			
		TOTAL N AMOUNTS IN KG AND % LEACHED			
		TOTAL N AMOUNTS IN KG AND %			

N2O-N/N in food/beverage/fuel/other					
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.86			
		0.86			

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER GOAT DEEP LITTER	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	GOAT MILK/MEAT GOAT MILK/MEAT	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED			
Year N NH3	IPCC 1996	IPCC 2006			
1-10 N leach	0.0402	0.0218			
TOTAL	0.0643	0.0360			
		TOTAL N AMOUNTS IN KG AND % LEACHED			
		TOTAL N AMOUNTS IN KG AND %			

N2O-N/N in food/beverage/fuel/other					
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.87			
		0.87			

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER MANURE FROM GRAZING GOATS	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	GOAT MILK/MEAT GOAT MILK/MEAT	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED			
Year N NH3	IPCC 1996	IPCC 2006			
1-10 N leach	0.0414	0.0251			
TOTAL	0.0751	0.0438			
		TOTAL N AMOUNTS IN KG AND % LEACHED			
		TOTAL N AMOUNTS IN KG AND %			

N2O-N/N in food/beverage/fuel/other					
Area with crop, ha		Total/year 1			
Natural background emissions, kg N2O-N/ha:		0.88			
		0.88			

SUMMARY N CROP

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH GREEN MANURE HIGH N

Total N	RATIO OF N2O-N TO N IN FIRST CROP	TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	HIGH N CROP	Note 43
Year N NH3	IPCC 1996	TO PRODUCE		CATTLE DAIRY	Note 43
1-10 N leach	0.0259	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		28.37	2.05
TOTAL	0.0496	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	28.24	2.35
		0.0174	TOTAL N AMOUNTS IN KG AND % LEACHED	28.67	0.29
		0.0355	TOTAL N AMOUNTS IN KG AND % LEACHED	43.30	0.32
			TOTAL N AMOUNTS IN KG AND %	100.47	1.08
			TOTAL N AMOUNTS IN KG AND %	100.00	

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

Area with crop, ha	Total/year 1	0.1313	0.0939	Note 46
Natural background emissions, kg N2O-N/ha:	1.19			
	1.19			

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

Relative value of green manure, %

N CHAIN STARTING WITH N FERTILIZER AND CONTINUING WITH GREEN MANURE LOW N

Total N	RATIO OF N2O-N TO N IN FIRST CROP	TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND WINTER WHEAT FOR	LOW N CROP	Note 43
Year N NH3	IPCC 1996	TO PRODUCE		CATTLE DAIRY	Note 43
1-10 N leach	0.0259	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		23.11	1.88
TOTAL	0.0503	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	24.28	2.21
		0.0174	TOTAL N AMOUNTS IN KG AND % LEACHED	24.21	0.24
		0.0336	TOTAL N AMOUNTS IN KG AND % LEACHED	52.88	0.40
			TOTAL N AMOUNTS IN KG AND %	100.27	1.32
			TOTAL N AMOUNTS IN KG AND %	100.00	

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

Area with crop, ha	Total/year 1	0.1634	0.1091	Note 46
Natural background emissions, kg N2O-N/ha:	0.95			
	0.95			

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

Relative value of green manure, %

SUMMARY FOOD, FUEL, AND WASTE

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER NO MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND NOTHING FOR	FOOD FOOD	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		75.08 75.08 1.35 1.94	1.11
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.20 2.20 0.02	0.02
1-10 N leach	0.0259	0.0174	TOTAL N AMOUNTS IN KG AND % LEACHED	22.72 22.72 0.57	0.17
TOTAL	0.0259	0.0174	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other		Total/year 1	0.0259	0.0174	Note 46
Area with crop, ha		0.64	1.00		Note 50
Natural background emissions, kg N2O-N/ha:		0.64	2.58	1.94	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER NO MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND NOTHING FOR	FUEL FUEL	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		75.08 75.08 1.35 1.94	1.11
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.20 2.20 0.02	0.02
1-10 N leach	0.0259	0.0174	TOTAL N AMOUNTS IN KG AND % LEACHED	22.72 22.72 0.57	0.17
TOTAL	0.0259	0.0174	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other		Total/year 1	0.0259	0.0174	Note 46
Area with crop, ha		0.64	1.00		Note 50
Natural background emissions, kg N2O-N/ha:		0.64	2.58	1.94	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER NO MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND NOTHING FOR	WASTE DUMPED ELSEWHERE WITHOUT LEACHING WASTE, DUMPED ELSEWHERE	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		75.08 75.08 1.35 1.94	1.11
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.20 2.20 0.02	0.02
1-10 N leach	0.0259	0.0174	TOTAL N AMOUNTS IN KG AND % LEACHED	22.72 22.72 0.57	0.17
TOTAL	0.0259	0.0174	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other		Total/year 1	0.1800	0.1205	Note 46
Area with crop, ha		0.64	1.00		Note 50
Natural background emissions, kg N2O-N/ha:		0.64	2.58	1.94	Note 51

N CHAIN STARTING WITH AND CONTINUING WITH	N FERTILIZER NO MANURE	TO PRODUCE TO PRODUCE	WINTER WHEAT FOR BIOETHANOL AND NOTHING FOR	WASTE DUMPED IN FIELD AND LOST TO LEACH WASTE DUMPED IN FIELD	Note 43 Note 43
Total N	RATIO OF N2O-N TO N IN FIRST CROP	TOTAL N AMOUNTS IN KG AND % ENDING AS FOOD/FUEL/OTHER/REMOVED		10.81 10.81 1.35 3.55	1.11
Year N NH3	IPCC 1996	IPCC 2006	TOTAL N AMOUNTS IN KG AND % VOLATILISATION/NH3	2.20 2.20 0.02	0.02
1-10 N leach	0.0473	0.0238	TOTAL N AMOUNTS IN KG AND % LEACHED	86.99 86.99 2.17	0.65
TOTAL	0.0473	0.0238	TOTAL N AMOUNTS IN KG AND %	100.00 100.00	

N2O-N/N in food/beverage/fuel/other		Total/year 1	0.3286	0.1651	Note 46
Area with crop, ha		0.64	1.00		Note 50
Natural background emissions, kg N2O-N/ha:		0.64	4.19	2.42	Note 51

SUMMARY CATTLE RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0269 0.0386 0.0205 0.0300
 TOTAL 0.0423 0.0645 0.0312 0.0463

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

MIN	MAX	MIN	MAX
0.79	1.02	0.79	1.30
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:			

SUMMARY PIGS RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0270 0.0359 0.0202 0.0273
 TOTAL 0.0371 0.0547 0.0265 0.0399

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

MIN	MAX	MIN	MAX
0.75	0.89	0.75	0.89
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:			

SUMMARY POULTRY RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0267 0.0389 0.0197 0.0303
 TOTAL 0.0356 0.0650 0.0241 0.0467

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

MIN	MAX	MIN	MAX
0.70	0.96	0.70	0.96
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:			

SUMMARY SHEEP AND GOATS RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0395 0.0414 0.0174 0.0251
 TOTAL 0.0643 0.0751 0.0323 0.0438

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

MIN	MAX	MIN	MAX
0.86	0.95	0.86	0.95
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:			

SUMMARY FODDER RATIO OF N2O-N TO N IN FIRST CROP
 ACCORDING TO IPCC 1996 IPCC 2006
 MIN MAX MIN MAX
 FIRST YEAR 0.0267 0.0414 0.0174 0.0303
 TOTAL 0.0356 0.0751 0.0241 0.0467

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

MIN	MAX	MIN	MAX
0.70	1.02	0.70	1.30
Natural background emissions in kg N2O-N/ha, area with crop in ha, and total emissions in kg N2O-N/ha:			

N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
MIN MAX	MIN MAX
3.18 4.84	2.34 3.48

MIN	MAX	MIN	MAX
0.0773	0.1289	0.0592	0.0926
4.17 5.67 3.14 4.30			

N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
MIN MAX	MIN MAX
2.78 4.11	1.99 3

MIN	MAX	MIN	MAX
0.0565	0.0800	0.0426	0.0584
3.68 4.96 2.75 3.85			

N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
MIN MAX	MIN MAX
2.67 4.88	1.81 3.51

MIN	MAX	MIN	MAX
0.0499	0.1317	0.0365	0.0946
3.49 5.71 2.51 4.33			

N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
MIN MAX	MIN MAX
4.83 5.64	2.42 3.29

MIN	MAX	MIN	MAX
0.1680	0.2070	0.0795	0.1207
5.70 6.54 3.28 4.17			

N2O-N emission IPCC 1996	N2O-N emission IPCC 2006
MIN MAX	MIN MAX
2.67 5.64	1.81 3.51

MIN	MAX	MIN	MAX
0.0499	0.2070	0.0365	0.1207
3.49 6.54 2.51 4.33			