

**Table S1: Detailed information on management activities during the years 2010 - 2014.**

Year	Mgmt. start (yyyy-mm-dd)	Mgmt. end (YYYY-MM-DD)	Regrowth	Mgmt. type	Characteristics	amt/ha	unit	N avail. (kg/ha)	P <sub>2</sub> O <sub>5</sub> (kg/ha)	K <sub>2</sub> O (kg/ha)	Mg (kg/ha)	DM (%)	N total (g/kg DM)	N-NH <sub>4</sub> (g/kg DM)	C org (g/kg DM)	C/N	C (kg/ha)	N (kg/ha)	
<b>2010</b>																			
<b>Parcel A, 1.4 ha</b>																			
	2010-03-18			organic fertilizer	slurry	26	m <sup>3</sup>	28.7	17.2	52.1	2.6	2.3	63.0	26.1	406.6	6.5	244	37.8	
	2010-05-27			organic fertilizer	slurry	48	m <sup>3</sup>	52.7	31.6	95.8	4.8	2.6	97.7	32.8	401.6	6.1	498	121.2	
	2010-07-06			organic fertilizer	slurry	25	m <sup>3</sup>	17.7	15.2	65.9	2.5	2.8	37.8	15.3	446.5	11.8	311	26.4	
	2010-08-25			organic fertilizer	slurry	27	m <sup>3</sup>	30.2	18.1	54.9	2.7	1.4	65.4	30.2	375.8	5.7	140	24.4	
	2010-10-28			organic fertilizer	slurry	40	m <sup>3</sup>	44.2	26.5	80.3	4.0	1.5	72.5	32.2	388.2	5.4	232	43.4	
	2010-05-22	2010-05-24	1	mowing	silage	4	waggon						37.0				1598	102.8	
	2010-06-28	2010-06-29	2	mowing	small bales (pressed)	99	piece						86.0				919	59.1	
	2010-08-20	2010-08-22	3	mowing	rowen	1	waggon						70.0				605	38.9	
	2010-10-08	2010-10-12	4	mowing	silage bales	4	piece						37.0				328	21.1	
	2010-08-25				organically farmed land														
	2010-09-29				organically farmed land														
	amount of nutrient needed according to fertilization plan							130.0	80.0	240.0	30.0								
	balance of nutrient at the end of the year							-43.5	-28.6	-109.0	13.3								31
<b>Parcel B, 3.3 ha</b>																			
	2010-03-18			organic fertilizer	slurry	26	m <sup>3</sup>	28.7	17.2	52.1	2.6	2.3	62.2	26.5	404.0	6.5	242	37.3	
	2010-05-27			organic fertilizer	slurry	12	m <sup>3</sup>	13.5	8.1	24.5	1.2	1.7	141.3	52.1	371.3	2.6	76	29.0	
	2010-07-06			organic fertilizer	slurry	25	m <sup>3</sup>	17.8	15.3	66.2	2.5	5.8	29.2	7.9	487.9	16.7	719	43.0	
	2010-08-25			organic fertilizer	slurry	28	m <sup>3</sup>	30.7	18.4	55.8	2.8	1.4	67.9	30.7	374.8	5.5	143	26.0	
	2010-10-28			organic fertilizer	slurry	40	m <sup>3</sup>	44.5	26.7	81.0	4.0	1.9	77.3	30.7	400.1	5.2	306	59.1	
	2010-04-06	2010-05-03	1	grazing	sheep	18	piece										305	19.6	
	2010-04-15	2010-05-03	1	grazing	sheep	15	piece										169	10.9	
	2010-05-14	2010-05-27	2	grazing	sheep	12	piece										98	6.3	
	2010-05-15	2010-05-19	2	grazing	sheep	18	piece										45	2.9	
	2010-06-03	2010-06-06	2	grazing	sheep	49	piece										90	5.8	
	2010-06-21	2010-06-22	2	grazing	sheep	49	piece										30	1.9	
	2010-09-30	2010-10-01	4	grazing	sheep	31	piece										19	1.2	
	2010-05-22	2010-05-24	1	mowing	silage	1	waggon						37.0				278	17.9	
	2010-06-28	2010-06-29	2	mowing	small bales (pressed)	25	piece						86.0				229	14.7	
	2010-08-20	2010-08-22	3	mowing	rowen	1	waggon						70.0				527	33.9	
	2010-10-08	2010-10-12	4	mowing	silage bales	2	piece						37.0				228	14.7	
	2010-09-29				organically farmed land														
	2010-07-14			herbicide	herbicide tabs (Ally)														
	2010-03-24			rolling	roller														
	2010-03-20			resowing	* OH-440 RenoTurbo	7	kg												
	2010-04-12			resowing	* OH-440 RenoTurbo	9	kg												
	2010-04-19			resowing	* OH 440 Reno	6	kg												
	2010-04-23			resowing	* OH-240 Reno	3	kg												
	2010-04-28			resowing	* OH-240 Reno	3	kg												
	amount of nutrient needed according to fertilization plan							130.0	80.0	240.0	30.0								
	balance of nutrient at the end of the year							-5.2	-5.7	-39.7	16.8								64.5
<b>2011</b>																			
<b>Parcel A, 1.5 ha</b>																			
	2011-03-10			organic fertilizer	slurry	25.3	m <sup>3</sup>	45.4	34.5	152.5	9.6	1.5	72.1	35.7	360.6	5.0	140.7	28.1	
	2011-04-28			organic fertilizer	slurry	27.0	m <sup>3</sup>	34.9	33.7	75.5	6.7	1.8	63.1	26.7	383.7	6.1	182.2	29.9	
	2011-06-22			organic fertilizer	slurry	21.9	m <sup>3</sup>	39.3	29.8	132.1	8.3	1.94	89.7	52.6	383.0	4.3	163.0	38.2	
	2011-07-18			organic fertilizer	slurry	27.3	m <sup>3</sup>	48.9	37.1	164.1	10.4	2.78	84.5	43.5	412.9	4.9	312.9	64.1	
	2011-08-29			organic fertilizer	slurry	30.0	m <sup>3</sup>	53.8	40.8	180.6	11.4	1.82	90.7	56.6	356.3	3.9	194.5	49.5	
	2011-10-13			organic fertilizer	slurry	39.4	m <sup>3</sup>	70.7	53.6	237.3	15.0	1.5	74.7	40.0	387.0	5.2	228.8	44.2	
	2011-05-20	2011-05-22		grazing	sheep	12.2	piece										15.0	1.0	
	2011-12-17	2011-12-31		grazing	sheep	10.2	piece										87.6	5.6	
	2011-04-21	2011-04-21	1	mowing	silage	35.1	dt DM						37				530.7	34.1	
	2011-06-15	2011-06-15	2	mowing	silage	21.4	dt DM						37				324.2	20.9	
	2011-07-12	2011-07-12	3	mowing	silage	60.0	dt DM						37				907.8	58.4	
	2011-08-26	2011-08-26	4	mowing	rowen	15.6	dt DM						70				445.4	28.6	
	2011-10-01	2011-10-01	5	mowing	silage	17.2	dt DM						37				259.6	16.7	
	amount of nutrient needed according to fertilization plan							0.0	80.0	240.0	30.0								
	balance of nutrient at the end of the year							NA	NA	NA	NA								88.7
<b>Parcel B, 3.4ha</b>																			
	2011-03-10			organic fertilizer	slurry	24.7	m <sup>3</sup>	44.3	33.6	148.7	9.4	1.55	71.0	33.5	365.0	5.1	139.8	27.2	
	2011-04-28			organic fertilizer	slurry	27.0	m <sup>3</sup>	34.9	33.7	75.5	6.7	1.8	61.1	25.6	386.5	6.3	187.6	29.7	
	2011-06-22			organic fertilizer	slurry	21.9	m <sup>3</sup>	39.3	29.8	132.1	8.3	3.05	50.5	32.5	436.6	8.7	292.1	33.8	
	2011-07-18			organic fertilizer	slurry	27.3	m <sup>3</sup>	48.9	37.1	164.1	10.4	1.76	106.8	59.1	375.5	5.5	180.2	51.2	
	2011-08-29			organic fertilizer	slurry	30.0	m <sup>3</sup>	53.8	40.8	180.6	11.4	2.57	75.9	43.6	399.4	3.3	308.0	58.5	
	2011-10-13			organic fertilizer	slurry	39.4	m <sup>3</sup>	70.7	53.6	237.3	15.0	2.79	52.7	23.3	365.7	6.9	402.2	57.9	
	2011-05-20	2011-05-22		grazing	sheep	12.2	piece										15.0	1.0	
	2011-12-17	2011-12-31		grazing	sheep	10.2	piece										87.6	5.6	
	2011-04-21	2011-04-21	1	mowing	silage	35.1	dt DM						37				530.8	34.1	
	2011-06-15	2011-06-15	2	mowing	silage	21.4	dt DM						37				324.2	20.9	
	2011-07-12	2011-07-12	3	mowing	silage	19.1	dt DM						37				289.7	18.6	
	2011-08-26	2011-08-26	4	mowing	rowen	15.6	dt DM						70				445.4	28.6	
	2011-10-01	2011-10-01	5	mowing	silage	17.2	dt DM						37				259.6	16.7	
	amount of nutrient needed according to fertilization plan							0.0	80.0	240.0	30.0								
	balance of nutrient at the end of the year							291.9	228.6	938.3	61.2								132.8
<b>2012</b>																			
<b>Parcel A, 1.5 ha</b>																			
	2012-03-28			harrowing	harrow														
	2012-02-02			ploughing	plough														
	2012-03-29			rolling	roller														
	2012-04-25			mineral fertilizer	**calcium carbonate & ammonium nitrate	100.0	kg	27.5	0.0	0.0	0.0	100	275.0	270.0	0.0	0.0	0.0	27.5	
	2012-01-16	2012-01-18		organic fertilizer	manure	20.4	t	27.5	46.9	173.3	16.9	16.71	32.1	3.6	458.6	14.3	1563.9	109.4	
	2012-06-26			organic fertilizer	slurry	18.8	m <sup>3</sup>	29.1	20.7	52.6	4.7	0.98	100.2	69.5	321.7	3.2	59.2	18.4	
	2012-07-13			organic fertilizer	slurry	18.8	m <sup>3</sup>	29.1	20.7	52.6	4.7	1.82	92.9	46.2	372.0	4.0	127.1	31.7	
	2012-08-16			organic fertilizer	slurry	19.6	m <sup>3</sup>	30.4	21.6	54.9	4.9	2.81	79.8	40.3	381.2	4.8	209.8	43.9	

