



						wheat	
						Winter wheat	3.74
				Sunflower	1.1	Winter wheat	1.77
				Sunflower	1.44	Winter wheat	1.44
				Sunflower	1.02	Winter wheat	0.9
						Winter wheat	29.03
						Winter wheat	4.54
						Winter wheat	1.01
						Winter wheat	0.97
						Winter wheat	0.37
						Winter wheat	0.82
						Winter wheat	0.21
						Winter wheat	0.15
						Winter wheat	2.82
						Winter wheat	0.2
						Winter wheat	0.42
						Winter wheat	0.37
						Winter wheat	0.7
						Winter wheat	0.2
						Winter wheat	0.37

**Table S2** Maize crop rotation per existing plot in 2022 (Farm C)  
Agricultural year

2019		2020		2021		2022	
Crop	Area -ha -	Crop	Area -ha -	Crop	Area -ha -	Crop	Area -ha -
Maize	25.87	Winter wheat	25.87	Soybean	18.87	Maize	18.78
Maize	1.63	Winter wheat	1.63	Soybean	8.73	Maize	8.73
Maize	28	Winter wheat	28	Soybean	31.68	Maize	31.68
Winter wheat	58.7	Rapeseed	58.7	Maize	57.94	Maize	57.94
Soybean	25.75	Maize	25.75	Soybean	27.53	Maize	27.53
Soybean	67.01	Maize	124.07	Soybean	123.69	Maize	123.6
Soybean	4.27	Maize	4.27	Soybean	5.02	Maize	5.02
Maize	44.41	Winter wheat	44.41	Soybean	45.51	Maize	54.76
Maize	37.72	Winter wheat	37.72	Soybean	37.22	Maize	37.17
Soybean	44.98	Maize	44.98	Winter wheat	44.21	Maize	44.21
Soybean	27.01	Maize	32.96	Winter wheat	19.3	Maize	33.71

Soybean	48.16	Maize	48.16	Soybean	49.55	Maize	49.55
Soybean	9.18	Maize	9.18	Soybean	8.47	Maize	8.47
Rapeseed	52.55	Winter barley	52.55	Soybean	56.65	Maize	56.65
Maize	48.28	Winter wheat	48.28	Soybean	47.03	Maize	47.03
		Winter wheat	22.72	Rapeseed	50.93	Maize	56.98
		Soybean	98.68	Maize	118.02	Maize	53.57
				Soybean	28.79	Maize	33.4

**Table S3** Sunflower crop rotation on existing plots in 2022 (Farm C)

Agricultural year							
2019		2020		2021		2022	
Crop	Area –ha-	Crop	Area –ha-	Crop	Area –ha-	Crop	Area –ha-
Winter wheat	67.23	Rapeseed	67.23	Winter barley	10.48	Sunflower	11.34
				Winter barley	9.17	Sunflower	8.81
Winter barley	20.71	Rapeseed	20.71	Winter barley	20.7	Sunflower	20.71
				Winter wheat	18.33	Sunflower	18.4
				Winter wheat	87.59	Sunflower	87.56
Winter wheat	1.56/1.84	Rapeseed	1.56	Winter wheat	1.84	Sunflower	1.84
Winter wheat	15.78	Rapeseed	15.78	Winter barley	15.78	Sunflower	15.78
Winter wheat	14	Rapeseed	15.1	Winter wheat	13.45	Sunflower	13.45
Winter wheat	15.82					Sunflower	3.25
Winter wheat	1.67	Rapeseed	1.05	Winter wheat	1.65	Sunflower	1.64
Winter wheat	1.45	Rapeseed	0.95	Rapeseed	1.41	Sunflower	1.54
Winter wheat	0.46	Rapeseed	0.37	Winter wheat	0.3	Sunflower	0.3
Winter wheat	30.22	Sunflower	30.22	Winter barley	30.22	Sunflower	30.22
Winter wheat	236.4	Sunflower	236.41	Winter wheat	223.41	Sunflower	188.59
Winter wheat	13.93	Sunflower	13.92	Rapeseed	13.84	Sunflower	13.84
Winter wheat	0.68	Rapeseed	0.68	Winter wheat	0.75	Sunflower	0.75
Sunflower	6.94	Rapeseed	6.94	Winter wheat	7.27	Sunflower	7.27
Winter wheat	5.13	Sunflower	5.13	Winter wheat	5.06	Sunflower	5.06
Winter wheat	25.65	Maize	25.65	Rapeseed	25.58	Sunflower	25.58
Winter wheat	4.25	Rapeseed	4.25	Winter wheat	4.31	Sunflower	4.31
Winter wheat	0.51	Rapeseed	0.51	Winter wheat	0.5	Sunflower	0.5
Winter wheat	0.2	Winter wheat	0.2	Winter wheat	0.2	Sunflower	0.2
		Winter wheat	0.6	Winter wheat	0.47	Sunflower	0.47
		Winter wheat	1.1	Winter wheat	1.1	Sunflower	1.1
				Winter wheat	3.2	Sunflower	3.2
				Winter wheat	25.15	Sunflower	2.25
				Winter wheat	0.89	Sunflower	0.89
				Winter wheat	0.3	Sunflower	0.3
						Sunflower	6.18
						Sunflower	10.52
						Sunflower	0.5
						Sunflower	0.4
						Sunflower	0.2
						Sunflower	0.48

						Sunflower	0.33
						Sunflower	0.87
						Sunflower	0.4
						Sunflower	0.31
						Sunflower	0.48
						Sunflower	2.84
						Sunflower	1.07
						Sunflower	0.69
						Sunflower	0.45
						Sunflower	0.26
						Sunflower	1.17
						Sunflower	0.38
						Sunflower	0.44
						Sunflower	0.74

**Table S4** Rotation of rapeseed on existing plots in 2022 (Farm C)

Agricultural year							
2019		2020		2021		2022	
Crop	Area -ha -	Crop	Area -ha -	Crop	Area -ha -	Crop	Area -ha -
Maize	27.18	Sunflower	27.18	Winter wheat	27.18	Rapeseed	27.18
						Rapeseed	34.82
Maize	66.14	Maize	65.62	Winter wheat	29.5	Rapeseed	29.5
Winter wheat	10.01	Sunflower	10.01	Winter wheat	10.5	Rapeseed	23.53
				Winter wheat	53.72	Rapeseed	17.26
				Winter wheat	39.44	Rapeseed	39.48
						Rapeseed	19.1
						Rapeseed	2.05

**Table S5** Soybean crop rotation on existing plots in 2022 (Farm C)

[illegible]