

Supplementary data. Table S1: Mean values of total organic carbon (C_{org}), carbon of Light fraction (C-LF), carbon associated with minerals (C-MIN), Carbon efficiency indices (CEI), LI: lability index (LI) and carbon management index (CMI) with years of establishments and different production systems and soil depths.

Soil Use/Management System	C_{org} ----- g kg ⁻¹ -----	C-LF	C-MIN	CEI	LI	CMI %
0.00 - 0.10 m						
No- Tillage 11 yrs	19.68	10.70	8.98	0.68	2.04	140
Crop-Livestock 5 yrs	19.52	9.00	11.53	0.67	1.35	93
Crop-Livestock 10 yrs	18.71	6.27	12.44	0.65	0.88	57
Native vegetation	28.73	10.21	18.52	1.00	1.00	100
0.10 - 0.20 m						
No- Tillage 11 yrs	17.55	8.08	9.45	0.89	5.84	523
Crop-Livestock 5 yrs	17.57	8.40	9.16	0.89	6.36	568
Crop-Livestock 10 yrs	17.03	6.96	10.08	0.86	4.71	413
Native vegetation	19.67	2.53	17.14	1.00	1.00	100
0.20 - 0.40 m						
No- Tillage 11 yrs	15.49	4.82	10.67	0.96	1.10	106
Crop-Livestock 5 yrs	14.57	5.40	9.17	0.90	1.58	140
Crop-Livestock 10 yrs	15.17	5.92	9.25	0.94	1.62	150
Native vegetation	16.07	4.59	11.50	1.00	1.00	100
0.40 - 0.60 m						
No- Tillage 11 yrs	13.49	4.58	8.91	1.13	1.85	217
Crop-Livestock 5 yrs	12.26	4.32	7.94	1.03	1.96	200
Crop-Livestock 10 yrs	11.58	6.56	4.87	0.97	4.86	469
Native vegetation	11.88	2.55	9.33	1.00	1.00	100