

**S7 Table. Shannon and Simpson diversity indices.** Alpha diversity based on the ITS1 (a) and ITS2 dataset (b).

a) Shannon and Simpson Indices based on ITS1 dataset

Samples	Shannon index	Means $\pm$ SD	Simpson index	Means $\pm$ SD
WW1_MP_int_R1	4.09	<b>3.94 <math>\pm</math> 0.15</b>	0,960	<b>0.954 <math>\pm</math> 0.009</b>
WW1_MP_int_R2	3.97		0,956	
WW1_MP_int_R3	3.74		0,941	
WW1_MP_int_R4	3.98		0,960	
WW1_MP_ext_R1	4.18	<b>3.99 <math>\pm</math> 0.27</b>	0,960	<b>0.952 <math>\pm</math> 0.017</b>
WW1_MP_ext_R2	3.92		0,951	
WW1_MP_ext_R3	4.22		0,967	
WW1_MP_ext_R4	3.65		0,928	
WW1_CT_int_R1	4.21	<b>4.04 <math>\pm</math> 0.17</b>	0,959	<b>0.953 <math>\pm</math> 0.007</b>
WW1_CT_int_R2	4.03		0,953	
WW1_CT_int_R3	3.81		0,944	
WW1_CT_int_R4	4.09		0,957	
WW1_CT_ext_R1	4.03	<b>3.77 <math>\pm</math> 0.26</b>	0,954	<b>0.923 <math>\pm</math> 0.036</b>
WW1_CT_ext_R2	3.92		0,942	
WW1_CT_ext_R3	3.71		0,923	
WW1_CT_ext_R4	3.43		0,873	
WW2_MP_int_R1	3.95	<b>3.72 <math>\pm</math> 0.39</b>	0,952	<b>0.929 <math>\pm</math> 0.041</b>
WW2_MP_int_R2	3.14		0,869	
WW2_MP_int_R3	3.98		0,957	
WW2_MP_int_R4	3.80		0,938	
WW2_MP_ext_R1	3.94	<b>3.90 <math>\pm</math> 0.30</b>	0,954	<b>0.945 <math>\pm</math> 0.020</b>
WW2_MP_ext_R2	3.47		0,914	
WW2_MP_ext_R3	4.03		0,952	
WW2_MP_ext_R4	4.15		0,958	
WW2_CT_int_R1	3.75	<b>3.61 <math>\pm</math> 0.13</b>	0,930	<b>0.921 <math>\pm</math> 0.008</b>
WW2_CT_int_R2	3.53		0,918	
WW2_CT_int_R3	3.47		0,912	
WW2_CT_int_R4	3.67		0,925	
WW2_CT_ext_R1	3.88	<b>3.83 <math>\pm</math> 0.12</b>	0,950	<b>0.945 <math>\pm</math> 0.009</b>
WW2_CT_ext_R2	3.94		0,950	
WW2_CT_ext_R3	3.65		0,931	
WW2_CT_ext_R4	3.86		0,949	

Soil samples were investigated from mould-board plough intensive (MP\_int), mould-board plough extensive (MP\_ext), conservation tillage intensive (CT\_int) and CT extensive variants (CT\_ext) in four replicates. Values are presented for each of the four replicates (R1-R4) and as means  $\pm$  standard deviation. Alpha diversity values based on ITS1 dataset (a) and ITS2 dataset (b).

b) Shannon and Simpson Indices based on ITS2 dataset

Samples	Shannon index	Means $\pm$ SD	Simpson index	Means $\pm$ SD
WW1_MP_int_R1	4.17	<b>3.98 <math>\pm</math> 0.16</b>	0.960	<b>0.947 <math>\pm</math> 0.016</b>
WW1_MP_int_R2	3.80		0.925	
WW1_MP_int_R3	4.03		0.956	
WW1_MP_int_R4	3.91		0.948	
WW1_MP_ext_R1	4.43	<b>3.91 <math>\pm</math> 0.64</b>	0.974	<b>0.930 <math>\pm</math> 0.066</b>
WW1_MP_ext_R2	4.18		0.967	
WW1_MP_ext_R3	4.07		0.947	
WW1_MP_ext_R4	2.98		0.832	
WW1_CT_int_R1	4.36	<b>4.22 <math>\pm</math> 0.10</b>	0.973	<b>0.965 <math>\pm</math> 0.009</b>
WW1_CT_int_R2	4.23		0.971	
WW1_CT_int_R3	4.16		0.959	
WW1_CT_int_R4	4.12		0.956	
WW1_CT_ext_R1	4.33	<b>4.38 <math>\pm</math> 0.10</b>	0.975	<b>0.975 <math>\pm</math> 0.005</b>
WW1_CT_ext_R2	4.29		0.970	
WW1_CT_ext_R3	4.40		0.975	
WW1_CT_ext_R4	4.51		0.981	
WW2_MP_int_R1	3.93	<b>3.57 <math>\pm</math> 0.49</b>	0.952	<b>0.901 <math>\pm</math> 0.069</b>
WW2_MP_int_R2	2.84		0.799	
WW2_MP_int_R3	3.75		0.931	
WW2_MP_int_R4	3.76		0.923	
WW2_MP_ext_R1	3.62	<b>3.61 <math>\pm</math> 0.52</b>	0.926	<b>0.910 <math>\pm</math> 0.063</b>
WW2_MP_ext_R2	2.87		0.817	
WW2_MP_ext_R3	4.00		0.946	
WW2_MP_ext_R4	3.95		0.950	
WW2_CT_int_R1	3.69	<b>4.04 <math>\pm</math> 0.26</b>	0.912	<b>0.951 <math>\pm</math> 0.027</b>
WW2_CT_int_R2	4.01		0.957	
WW2_CT_int_R3	4.18		0.964	
WW2_CT_int_R4	4.28		0.973	
WW2_CT_ext_R1	3.68	<b>3.71 <math>\pm</math> 0.61</b>	0.934	<b>0.907 <math>\pm</math> 0.099</b>
WW2_CT_ext_R2	4.12		0.965	
WW2_CT_ext_R3	4.19		0.968	
WW2_CT_ext_R4	2.87		0.759	