

**Table S1.** Soil diversity (pedodiversity) is expressed as taxonomic diversity at the level of soil order in the state of Illinois (IL) (USA) [6].

<b>Stocks</b>		<b>Area (2016)</b>	<b>Area (2016)</b>
<b>Soil Order</b>	<b>General Characteristics and Constraints</b>	<b>(km<sup>2</sup>)</b>	<b>(%)</b>
	<b>Slightly Weathered</b>	<b>15,120.1</b>	<b>12.1</b>
Entisols	Embryonic soils with ochric epipedon	9420.5	7.5
Inceptisols	Young soils with ochric or umbric epipedon	4822.5	3.9
Histosols	Organic soils with $\geq 20\%$ of organic carbon	877.0	0.7
	<b>Moderately Weathered</b>	<b>108,792.1</b>	<b>87.7</b>
Alfisols	Clay-enriched B horizon with B.S. $\geq 35\%$	55,983.9	45.1
Mollisols	Carbon-enriched soils with B.S. $\geq 50\%$	52,808.2	42.6
	<b>Strongly Weathered</b>	<b>190.9</b>	<b>0.2</b>
Ultisols	Highly leached soils with B.S. $< 35\%$	190.9	0.2
<b>Total</b>		<b>124,103.1</b>	<b>100%</b>

Note: B.S. = base saturation. Entisols, Inceptisols, Alfisols, Mollisols, and Ultisols are mineral soils. Histosols are mostly organic soils.