Table S1. Geographic locations of the soil sampling areas, land use, soil texture and physico-chemical parameters

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|  | **HaplicChernozem****(silt)** | **Haplic Luvisol****(silt loam)** | **Eutric Vertisol****(silt loam)** |
| **Coordinates** | 51°30`29.44 N9°55`38.26 E | 51°29`52.88 N9°55`38.26 E | 51°28`26.99 N9°59`55.13 E |
| **Land use** | winter wheat  | grass land | winter wheat  |
| **Elevation in m** | 265 | 153 | 165 |
| **Sand content (%)** | 3. 7 | 20.7 | 11.3 |
| **Silt content (%)** | 83.8 | 68.1 | 67.8 |
| **Clay content (%)** | 12.6 | 11.2 | 20.9 |
| **pH (H2O)** | 7.6 | 7.6 | 7.4 |
| **C/N ratio** | 16.3 | 15.8 | 13.2 |

Soil texture and the physico-chemical parameters were determined by the Institute of Soil Science (Georg-August-University, Göttingen, Germany).