**Table S1**: Soil properties of the field site.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Soil horizon** | **Depth (cm)** | **pH (CaCl2)** | **SOC (g kg-1)** | **Sand (%)** | **Silt (%)** | **Clay (%)** |
|  |  |  |  |  |  |  |
| **AE** | 0-2 | 3.3 | 27 | 70 | 26 | 4 |
|  |  |  |  |  |  |  |
| **Bsw** | 2-12 | 3.4 | 17 | 65 | 30 | 5 |
|  |  |  |  |  |  |  |
| **Bw** | 12-36 | 4.4 | 7 | 67 | 29 | 4 |
|  |  |  |  |  |  |  |
| **BwC** | 36-65 | 4.5 | 3 | 73 | 24 | 3 |
|  |  |  |  |  |  |  |
| **C** | 65-125 | 4.4 | 0.4 | 95 | 4 | 1 |
|  |  |  |  |  |  |  |
| **2C** | 125-150 | 4.1 | 0.1 | 81 | 11 | 8 |
|  |  |  |  |  |  |  |
| **2Cg** | 150-180 | 4.2 | 0.8 | 72 | 19 | 9 |
|  |  |  |  |  |  |  |
| **3C** | 180+ | 4.2 | <0.1 | 95 | 4 | 1 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |