**Table S1.** Basic soil properties and major nutrients concentrations in soil

| **Land use** | **Site number** | **Sampling Depth**  **(cm)** | **pH** | **SOM**  **(%)** | **Bulk**  **Density**  **(g/cm3)** | **CEC**  **(cmolc/kg)** | **CaCO3**  **(%)** | **EC**  **(dS/m)** | **P2O5**  **(mg/kg)** | **K2O**  **(mg/kg)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Orchards | 1 | 0-30 | 8.20 | 6.40 | 1.33 | 63.91 | 11.53 | 0.25 | 18.47 | 1267.93 |
| 2 | 0-30 | 6.52 | 5.05 | n/s\* | 42.38 | 1.06 | 0.13 | 17.71 | 382.96 |
| 3 | 0-30 | 7.46 | 4.65 | 1.29 | 67.18 | 2.00 | 0.12 | 134.54 | 401.11 |
| 4 | 0-30 | 8.36 | 5.25 | 1.19 | 45.47 | 3.08 | 0.17 | 23.04 | 830.99 |
| 5 | 0-30 | 7.95 | 7.30 | 1.19 | 59.23 | 4.08 | 0.15 | 11.13 | 423.50 |
| Vineyards | 1 | 0-30 | 8.31 | 4.55 | 1.16 | 48.49 | 2.32 | 0.14 | 46.78 | 519.79 |
| 2 | 0-30 | 8.14 | 5.60 | 1.06 | 67.79 | 6.43 | 0.17 | 49.73 | 364.13 |
| 3 | 0-30 | 7.84 | 3.85 | 1.39 | 54.85 | 2.36 | 0.13 | 75.30 | 572.63 |
| 4 | 0-30 | 8.63 | 4.70 | 1.43 | 60.10 | 2.42 | 0.13 | 14.43 | 544.98 |
| 5 | 0-30 | 8.23 | 5.15 | 1.33 | 56.95 | 8.17 | 0.46 | 58.78 | 2224.67 |
| 6 | 0-30 | 7.29 | 5.65 | 1.26 | 60.66 | 0.27 | 0.17 | 32.09 | 789.99 |
| 7 | 0-30 | 8.29 | 5.95 | 1.14 | 73.47 | 5.30 | 0.16 | 14.74 | 761.45 |
| 8 | 0-30 | 8.14 | 7.25 | 1.13 | 80.46 | 7.25 | 0.30 | 45.05 | 2076.94 |
| 9 | 0-30 | 7.58 | 5.10 | 1.22 | 65.96 | 2.18 | 0.18 | 13.53 | 741.18 |
| Former  vineyards | 1 | 0-30 | 7.99 | 5.50 | 1.16 | 64.55 | 1.73 | 0.14 | 8.85 | 383.77 |
| 2 | 0-30 | 8.64 | 3.65 | 1.33 | 62.42 | 3.32 | 0.15 | 17.35 | 240.22 |
| 3 | 0-30 | 8.15 | 3.40 | 1.22 | 62.40 | 2.32 | 0.14 | 25.08 | 485.54 |
| 4 | 0-30 | 8.37 | 4.50 | 1.38 | 64.27 | 10.79 | 0.16 | 3.65 | 303.86 |
| 5 | 0-30 | 7.26 | 6.55 | 1.19 | 36.09 | 0.00 | 0.18 | 83.15 | 720.01 |
| 6 | 0-30 | 8.10 | 6.35 | 1.38 | 73.15 | 14.29 | 0.20 | 17.74 | 1350.80 |
| 7 | 0-30 | 8.43 | 6.20 | 1.15 | 67.06 | 5.05 | 0.25 | 16.76 | 2707.28 |
| 8 | 0-30 | 8.27 | 2.90 | 1.18 | 60.82 | 12.13 | 0.14 | 19.85 | 233.50 |
| 9 | 0-30 | 8.01 | 3.65 | 1.28 | 63.39 | 2.46 | 0.13 | 58.73 | 613.55 |
| 10 | 0-30 | 7.94 | 4.50 | 1.32 | 46.37 | 1.50 | 0.15 | 28.41 | 330.02 |

\*n/s – not sampled due to high stoniness

**Table S1.** Continued

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Land use** | **Site number** | **Sampling Depth**  **(cm)** | **pH** | **SOM**  **(%)** | **Bulk**  **Density**  **(g/cm3)** | **CEC**  **(cmolc/kg)** | **CaCO3**  **(%)** | **EC**  **(dS/m)** | **P2O5**  **(mg/kg)** | **K2O**  **(mg/kg)** |
| Arable,  intensive | 1 | 0-30 | 8.10 | 3.40 | 1.39 | 31.72 | 7.08 | 0.36 | 95.81 | 487.00 |
| 2 | 0-30 | 7.30 | 2.70 | 1.29 | 29.25 | 0.10 | 0.10 | 28.34 | 130.75 |
| 3 | 0-30 | 8.26 | 2.95 | 1.30 | 64.56 | 2.63 | 0.14 | 58.65 | 327.32 |
| 4 | 0-30 | 8.44 | 3.65 | 1.37 | 45.61 | 2.73 | 0.18 | 11.08 | 366.93 |
| 5 | 0-30 | 8.43 | 3.30 | 1.33 | 43.92 | 7.82 | 0.15 | 10.65 | 327.18 |
| 6 | 0-30 | 8.35 | 3.90 | 1.26 | 58.51 | 8.43 | 0.21 | 38.62 | 1596.95 |
| 7 | 0-30 | 8.39 | 4.85 | 1.03 | 70.71 | 8.08 | 0.14 | 46.12 | 353.15 |
| 8 | 0-30 | 8.33 | 3.35 | 1.06 | 51.44 | 6.20 | 0.17 | 19.18 | 1109.15 |
| 9 | 0-30 | 8.64 | 3.00 | 1.35 | 42.19 | 5.33 | 0.21 | 42.49 | 844.19 |
| 10 | 0-30 | 8.54 | 2.60 | 1.12 | 47.38 | 4.83 | 0.16 | 7.42 | 393.81 |
| 11 | 0-30 | 7.51 | 5.75 | n/s | 53.64 | 0.46 | 0.13 | 55.90 | 632.23 |
| 12 | 0-30 | 8.09 | 5.25 | 1.12 | 70.06 | 1.40 | 0.23 | 66.99 | 1321.36 |
| 13 | 0-30 | 8.30 | 4.45 | 1.12 | 73.60 | 4.72 | 0.16 | 35.66 | 346.57 |
| 14 | 0-30 | 8.34 | 3.25 | 1.25 | 47.99 | 1.65 | 0.13 | 16.86 | 584.20 |
| Arable,  extensive | 1 | 0-30 | 7.80 | 4.15 | 1.11 | 60.02 | 1.62 | 0.15 | 8.66 | 530.28 |
| 2 | 0-30 | 8.05 | 2.65 | 1.36 | 31.58 | 1.62 | 0.12 | 17.07 | 253.86 |
| 3 | 0-30 | 8.61 | 3.45 | 1.12 | 48.86 | 6.68 | 0.15 | 8.17 | 336.61 |
| 4 | 0-30 | 7.21 | 5.75 | 1.26 | 57.99 | 1.47 | 0.09 | 13.49 | 345.78 |
| 5 | 0-30 | 8.14 | 5.15 | 1.14 | 58.33 | 1.18 | 0.16 | 22.00 | 671.20 |
| 6 | 0-30 | 7.50 | 5.60 | 0.99 | 62.79 | 1.70 | 0.07 | 7.94 | 307.30 |
| 7 | 0-30 | 6.88 | 5.60 | 1.08 | 58.89 | 0.00 | 0.08 | 48.47 | 300.51 |
| 8 | 0-30 | 8.41 | 5.45 | 1.04 | 73.42 | 13.42 | 0.15 | 26.98 | 321.85 |
| 9 | 0-30 | 8.26 | 4.90 | 0.99 | 77.81 | 1.50 | 0.13 | 33.10 | 316.29 |
| 10 | 0-30 | 8.13 | 6.05 | 1.16 | 78.31 | 2.62 | 0.18 | 24.99 | 232.29 |
| 11 | 0-30 | 8.17 | 5.15 | 1.19 | 81.26 | 2.22 | 0.16 | 11.34 | 303.03 |
| 12 | 0-30 | 8.29 | 3.60 | 1.25 | 59.03 | 4.20 | 0.19 | 17.56 | 389.31 |
| 13 | 0-30 | 8.04 | 3.05 | 1.12 | 63.04 | 1.22 | 0.15 | 39.29 | 440.39 |
| 14 | 0-30 | 8.19 | 3.85 | 1.15 | 49.14 | 9.99 | 0.21 | 33.18 | 429.39 |
| 15 | 0-30 | 8.42 | 2.60 | 1.27 | 45.52 | 2.58 | 0.18 | 26.83 | 977.17 |
| 16 | 0-30 | 8.09 | 3.00 | 1.43 | 34.96 | 0.41 | 0.12 | 63.42 | 662.36 |
| 17 | 0-30 | 8.37 | 5.70 | 1.09 | 58.01 | 10.79 | 0.14 | 0.86 | 282.25 |
| 18 | 0-30 | 8.31 | 6.10 | 1.05 | 59.94 | 19.57 | 0.15 | 15.88 | 287.06 |
| 19 | 0-30 | 8.58 | 3.45 | 1.32 | 70.65 | 3.10 | 0.15 | 28.69 | 340.08 |
| 20 | 0-30 | 8.25 | 3.90 | 1.40 | 54.78 | 8.11 | 0.14 | 11.19 | 362.04 |

\*n/s – not sampled due to high stoniness

**Table S1.** Continued

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Land use** | **Site number** | **Sampling Depth**  **(cm)** | **pH** | **SOM**  **(%)** | **Bulk**  **Density**  **(g/cm3)** | **CEC**  **(cmolc/kg)** | **CaCO3**  **(%)** | **EC**  **(dS/m)** | **P2O5**  **(mg/kg)** | **K2O**  **(mg/kg)** |
| Pastures | 1 | 0-30 | 8.10 | 11.10 | 0.87 | 81.40 | 7.82 | 0.16 | 20.79 | 240.98 |
| 2 | 0-30 | 8.32 | 2.90 | 1.42 | 41.40 | 16.31 | 0.16 | 11.09 | 278.19 |
| 3 | 0-30 | 8.45 | 3.00 | 1.64 | 38.25 | 12.72 | 0.13 | 9.07 | 223.81 |
| 4 | 0-30 | 7.98 | 3.35 | 1.32 | 41.72 | 0.62 | 0.20 | 11.94 | 443.76 |
| 5 | 0-30 | 8.70 | 3.20 | 1.34 | 45.28 | 6.84 | 0.14 | 9.04 | 313.45 |
| 6 | 0-30 | 7.10 | 5.40 | 1.05 | 42.14 | 0.00 | 0.83 | 8.26 | 119.07 |
| 7 | 0-30 | 8.23 | 5.50 | 1.40 | 43.84 | 2.75 | 0.18 | 36.60 | 583.80 |
| 8 | 0-30 | 8.10 | 11.05 | 1.11 | 58.33 | 8.46 | 0.17 | 2.68 | 402.72 |
| 9 | 0-30 | 8.24 | 7.85 | 1.25 | 49.18 | 34.91 | 0.17 | 14.47 | 325.28 |
| 10 | 0-30 | 8.03 | 6.90 | 1.28 | 56.15 | 15.72 | 0.23 | 11.30 | 293.02 |
| 11 | 0-30 | 8.35 | 8.75 | 1.13 | 54.07 | 30.87 | 0.17 | 10.79 | 363.12 |
| 12 | 0-30 | 8.25 | 7.90 | 1.24 | 60.08 | 9.60 | 0.20 | 28.55 | 602.05 |
| 13 | 0-30 | 8.52 | 6.10 | 1.17 | 50.99 | 44.67 | 0.17 | 4.79 | 186.28 |
| 14 | 0-30 | 8.36 | 7.20 | 1.03 | 55.89 | 19.55 | 0.16 | 6.59 | 190.09 |
| 15 | 0-30 | 8.11 | 6.30 | 1.08 | 66.25 | 6.66 | 0.14 | 5.36 | 210.80 |
| 16 | 0-30 | 7.22 | 11.00 | 1.00 | 72.48 | 2.80 | 0.16 | 0.39 | 181.63 |
| 17 | 0-30 | 8.14 | 6.70 | 1.20 | 62.76 | 11.24 | 0.15 | 11.71 | 322.21 |
| 18 | 0-30 | 8.36 | 6.10 | 1.17 | 60.19 | 8.96 | 0.15 | 16.34 | 298.24 |
| 19 | 0-30 | 8.40 | 3.25 | 1.43 | 37.13 | 6.71 | 0.18 | 35.48 | 301.77 |
| 20 | 0-30 | 6.76 | 7.35 | 1.14 | 56.34 | 2.35 | 0.11 | 24.66 | 163.87 |
| 21 | 0-30 | 8.34 | 5.35 | 1.19 | 59.36 | 20.91 | 0.15 | 10.17 | 165.43 |
| 22 | 0-30 | 7.56 | 5.50 | 1.34 | 60.22 | 1.32 | 0.12 | 25.93 | 252.61 |
| 23 | 0-30 | 8.30 | 3.65 | 1.22 | 53.03 | 12.71 | 0.18 | 25.68 | 824.78 |
| 24 | 0-30 | 8.70 | 5.05 | 1.24 | 49.73 | 2.31 | 0.56 | 29.42 | 956.90 |
| 25 | 0-30 | 8.52 | 4.55 | 1.38 | 56.83 | 6.26 | 0.14 | 28.07 | 926.40 |