**Table S3.** Potentially plant-available forms of nutrients (Cu, Zn, Fe, Mn, Ni) and toxic elements (Cd, Pb) in soil.

| **Land use** | **Site number** | **Sampling Depth**  **(cm)** | Cu  **(mg/kg)** | Zn  **(mg/kg)** | Fe  **(mg/kg)** | Mn  **(mg/kg)** | Ni  (**mg/kg)** | Cd  **mg/kg)** | Pb  **(mg/kg)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Orchards | 1 | 0-30 | 8.68 | 3.17 | 18.41 | 10.01 | 1.03 | 0.23 | 1.14 |
| 2 | 0-30 | 3.62 | 1.02 | 217.58 | 42.33 | 2.29 | 0.25 | 1.51 |
| 3 | 0-30 | 3.72 | 1.46 | 34.35 | 65.82 | 5.02 | 0.28 | 1.43 |
| 4 | 0-30 | 4.17 | 0.38 | 16.53 | 58.15 | 2.52 | 0.17 | 1.23 |
| 5 | 0-30 | 2.47 | 0.21 | 10.30 | 77.68 | 2.55 | 0.09 | 0.88 |
| Vineyards | 1 | 0-30 | 31.63 | 1.38 | 13.71 | 80.81 | 2.54 | n/d | 1.11 |
| 2 | 0-30 | 152.01 | 66.10 | 18.08 | 22.61 | 2.05 | 2.60 | 2.24 |
| 3 | 0-30 | 26.95 | 5.75 | 35.36 | 38.24 | 2.30 | 0.30 | 1.91 |
| 4 | 0-30 | 40.95 | 16.05 | 21.36 | 30.07 | 2.25 | 0.46 | 1.83 |
| 5 | 0-30 | 9.69 | 1.74 | 25.46 | 11.66 | 0.87 | 0.27 | 1.14 |
| 6 | 0-30 | 47.21 | 3.10 | 57.06 | 30.27 | 1.58 | 0.26 | 0.80 |
| 7 | 0-30 | 15.92 | 1.38 | 18.95 | 7.06 | 0.44 | 0.28 | 0.90 |
| 8 | 0-30 | 32.29 | 4.39 | 78.22 | 10.99 | 1.43 | 0.28 | 1.08 |
| 9 | 0-30 | 18.28 | 1.20 | 72.84 | 26.44 | 2.04 | 0.30 | 0.91 |
| Former  vineyards | 1 | 0-30 | 43.99 | 7.14 | 11.14 | 122.39 | 3.61 | 1.37 | 3.45 |
| 2 | 0-30 | 52.98 | 55.30 | 26.76 | 21.46 | 1.90 | 0.07 | 2.60 |
| 3 | 0-30 | 65.88 | 26.29 | 25.54 | 29.28 | 2.39 | 1.05 | 2.04 |
| 4 | 0-30 | 44.99 | 7.42 | 14.55 | 81.77 | 2.75 | 1.32 | 2.58 |
| 5 | 0-30 | 42.13 | 4.11 | 73.07 | 89.11 | 2.36 | 0.27 | 0.93 |
| 6 | 0-30 | 29.85 | 6.72 | 16.74 | 9.86 | 0.91 | 0.44 | 1.17 |
| 7 | 0-30 | 27.71 | 3.22 | 11.24 | 13.32 | 1.08 | 0.19 | 1.76 |
| 8 | 0-30 | 64.27 | 35.34 | 19.94 | 16.92 | 1.91 | 0.94 | 2.13 |
| 9 | 0-30 | 70.59 | 31.14 | 27.16 | 36.23 | 2.49 | 1.09 | 2.48 |
| 10 | 0-30 | 27.11 | 5.06 | 12.47 | 137.79 | 3.23 | 0.61 | 0.82 |

\*n/d – not detected

**Table S3.** Continued

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Land use** | **Site number** | **Sampling Depth**  **(cm)** | Cu  **(mg/kg)** | Zn  **(mg/kg)** | Fe  **(mg/kg)** | Mn  **(mg/kg)** | Ni  (**mg/kg)** | Cd  **mg/kg)** | Pb  **(mg/kg)** |
| Arable,  intensive | 1 | 0-30 | 15.66 | 3.33 | 11.75 | 111.63 | 2.80 | 0.35 | 2.75 |
| 2 | 0-30 | 6.65 | 2.66 | 44.79 | 144.30 | 2.51 | 0.21 | 1.59 |
| 3 | 0-30 | 5.07 | 1.74 | 12.06 | 11.20 | 1.99 | 0.18 | 0.14 |
| 4 | 0-30 | 5.22 | 0.10 | 6.07 | 56.06 | 3.01 | 0.20 | 2.54 |
| 5 | 0-30 | 3.10 | 0.18 | 13.85 | 58.17 | 2.56 | 0.34 | 1.79 |
| 6 | 0-30 | 9.61 | 1.29 | 21.22 | 14.88 | 0.94 | 0.26 | 0.98 |
| 7 | 0-30 | 2.45 | 0.00 | 7.57 | 49.50 | 3.60 | 0.21 | 2.26 |
| 8 | 0-30 | 3.55 | 0.31 | 12.31 | 59.27 | 3.25 | 0.41 | 1.19 |
| 9 | 0-30 | 16.13 | 1.88 | 9.05 | 57.67 | 2.81 | 0.47 | 1.21 |
| 10 | 0-30 | 7.30 | 1.56 | 12.10 | 57.53 | 3.01 | 0.43 | 1.21 |
| 11 | 0-30 | 4.05 | 0.83 | 100.86 | 29.05 | 2.02 | 0.26 | 0.49 |
| 12 | 0-30 | 33.12 | 14.55 | 28.53 | 18.94 | 1.43 | 0.67 | 1.76 |
| 13 | 0-30 | 2.75 | 0.03 | 11.00 | 58.68 | 4.05 | 0.18 | 1.25 |
| 14 | 0-30 | 12.95 | 1.11 | 8.66 | 60.04 | 2.55 | 0.52 | 1.65 |
| Arable,  extensive | 1 | 0-30 | 13.37 | 2.16 | 11.16 | 155.78 | 3.85 | 0.35 | 2.32 |
| 2 | 0-30 | 2.28 | 0.15 | 7.21 | 63.19 | 2.79 | 0.18 | 2.04 |
| 3 | 0-30 | 1.95 | 0.16 | 6.05 | 38.70 | 2.75 | 0.16 | 3.01 |
| 4 | 0-30 | 2.31 | 0.05 | 11.18 | 80.57 | 2.57 | 0.05 | 1.00 |
| 5 | 0-30 | 2.50 | 0.07 | 5.56 | 54.38 | 4.34 | 0.22 | 2.45 |
| 6 | 0-30 | 3.43 | 0.18 | 18.63 | 178.86 | 8.14 | 0.23 | 2.02 |
| 7 | 0-30 | 3.68 | 0.27 | 36.28 | 332.45 | 10.41 | 0.24 | 1.29 |
| 8 | 0-30 | 2.41 | 0.05 | 7.84 | 51.91 | 3.38 | 0.17 | 2.72 |
| 9 | 0-30 | 2.57 | 0.04 | 8.60 | 58.73 | 4.02 | 0.22 | 2.33 |
| 10 | 0-30 | 2.97 | 0.08 | 10.20 | 76.58 | 4.53 | 0.22 | 2.10 |
| 11 | 0-30 | 2.32 | n/d | 12.48 | 61.31 | 4.47 | 0.20 | 2.54 |
| 12 | 0-30 | 14.58 | 3.51 | 9.16 | 84.44 | 2.57 | 0.42 | 2.72 |
| 13 | 0-30 | 4.70 | 0.70 | 8.60 | 160.61 | 4.27 | 0.24 | 2.40 |
| 14 | 0-30 | 7.14 | 1.89 | 7.17 | 75.87 | 2.97 | 0.26 | 1.24 |
| 15 | 0-30 | 3.40 | 0.28 | 13.05 | 41.05 | 3.35 | 0.67 | 1.10 |
| 16 | 0-30 | 10.32 | 2.53 | 23.74 | 65.55 | 2.50 | 0.24 | 1.86 |
| 17 | 0-30 | 1.77 | n/d | 8.83 | 54.37 | 3.16 | 0.33 | 1.77 |
| 18 | 0-30 | 1.97 | 0.07 | 10.36 | 57.07 | 2.98 | 0.22 | 1.67 |
| 19 | 0-30 | 15.51 | 3.48 | 11.03 | 15.14 | 2.11 | 0.28 | 1.49 |
| 20 | 0-30 | 0.23 | 1.72 | 19.82 | 26.49 | 2.56 | 0.25 | 2.48 |

\*n/d – not detected

**Table S3.** Continued

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Land use** | **Site number** | **Sampling Depth**  **(cm)** | Cu  **(mg/kg)** | Zn  **(mg/kg)** | Fe  **(mg/kg)** | Mn  **(mg/kg)** | Ni  (**mg/kg)** | Cd  **mg/kg)** | Pb  **(mg/kg)** |
| Pastures | 1 | 0-30 | 3.25 | 0.23 | 16.24 | 163.72 | 6.59 | 0.27 | 1.32 |
| 2 | 0-30 | 2.02 | 0.26 | 7.25 | 52.29 | 2.36 | 0.16 | 0.92 |
| 3 | 0-30 | 2.45 | 0.34 | 6.94 | 53.60 | 2.21 | 0.13 | 0.91 |
| 4 | 0-30 | 5.42 | 1.65 | 12.07 | 33.79 | 2.52 | 0.44 | 0.76 |
| 5 | 0-30 | 5.22 | 0.86 | 11.95 | 57.66 | 1.71 | 0.52 | 1.02 |
| 6 | 0-30 | 26.86 | 6.36 | 84.31 | 97.41 | 2.00 | 0.43 | 0.95 |
| 7 | 0-30 | 2.46 | 1.56 | 10.03 | 78.18 | 2.85 | 0.24 | 0.92 |
| 8 | 0-30 | 1.66 | 0.32 | 9.78 | 52.41 | 2.04 | 0.39 | 1.05 |
| 9 | 0-30 | 1.78 | 0.26 | 9.14 | 46.63 | 2.14 | 0.11 | 0.91 |
| 10 | 0-30 | 1.81 | n/d | 10.57 | 73.34 | 2.96 | 0.34 | 0.97 |
| 11 | 0-30 | 1.69 | 0.16 | 10.53 | 77.31 | 1.95 | 0.23 | 0.91 |
| 12 | 0-30 | 2.27 | 0.47 | 8.33 | 68.87 | 2.35 | 0.08 | 0.89 |
| 13 | 0-30 | 1.66 | n/d | 9.02 | 64.22 | 2.76 | 0.29 | 1.02 |
| 14 | 0-30 | 1.99 | 0.05 | 11.76 | 68.37 | 2.34 | 0.27 | 0.84 |
| 15 | 0-30 | 2.51 | 0.02 | 15.00 | 185.71 | 2.88 | 0.15 | 0.82 |
| 16 | 0-30 | 2.30 | 0.06 | 24.51 | 169.76 | 2.96 | n/d | 0.71 |
| 17 | 0-30 | 1.90 | 0.06 | 10.36 | 80.97 | 2.24 | 0.13 | 0.82 |
| 18 | 0-30 | 2.26 | n/d | 10.57 | 68.27 | 2.70 | 0.08 | 0.78 |
| 19 | 0-30 | 2.25 | 0.07 | 12.64 | 38.07 | 2.29 | 0.14 | 0.51 |
| 20 | 0-30 | 2.90 | 0.19 | 40.16 | 162.81 | 2.74 | 0.17 | 0.64 |
| 21 | 0-30 | 1.70 | n/d | 12.19 | 69.99 | 2.37 | 0.14 | 0.70 |
| 22 | 0-30 | 3.33 | 0.17 | 19.56 | 127.72 | 2.82 | 0.07 | 0.55 |
| 23 | 0-30 | 2.53 | 0.15 | 9.38 | 48.87 | 2.12 | 0.08 | 0.60 |
| 24 | 0-30 | 5.79 | 0.18 | 20.84 | 65.31 | 2.82 | 0.18 | 0.49 |
| 25 | 0-30 | 2.68 | n/d | 16.49 | 58.76 | 2.71 | n/d | 0.52 |

\*n/d – not detected