**Effect of sewage sludge and digestate from anaerobic fermentation as soil additives on the nutritional status and accumulation of non-essential elements in plants with different nutrition strategies**

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**Online Resource 1** Total concentration of essential elements and distribution of elements in three operationally defined soil fractions (µg $g^{-1}$) according to Wiche et al. (2017) and Monei et al. (2022). Fraction 1 (F1): mobile, exchangeable elements, Fraction 2 (F2): bound to organics. Fraction 3 (F3): bound to amorphous oxides). All values are based on dry weight. Mean ± standard error (n = 5). Concentrations within the same element fraction between different substrates were compared by t-tests with Bonferroni adjustment. Means with different letters are statistically significantly different at α= 5%

| Element | Fraction | Sewage sludge | Digestate |
|---|---|---|---|
| P | Total | 22,376 ± 3,199a | 9,453 ± 824b |
| | F1 | 231 ± 16b | 3853 ± 196a |
| | F2 | < 5 | 168 ± 117 |
| | F3 | 18,101 ± 680a | 2,302 ± 263b |
| Mg | Total | 2,803 ± 413b | 9,516 ± 1,243a |
| | F1 | 1174 ± 27b | 4661 ± 188a |
| | F2 | 288 ± 28b | 788 ± 358a |
| | F3 | 340 ± 39 | 517 ± 263 |
| Fe | Total | 9,006 ± 1,355b | 10,130 ± 2,182a |
| | F1 | 12.2 ± 1.4b | 198 ± 55a |
| | F2 | 10.8 ± 2.3b | 186 ± 126a |
| | F3 | 7,952 ± 363a | 6,187 ± 682b |
| Mn | Total | 102 ± 111b | 361 ± 113a |
| | F1 | 25.4 ± 2.7b | 77.4 ± 7.0a |
| | F2 | 5.2 ± 0.9b | 19 ± 4a |
| | F3 | 38 ± 3b | 65 ± 8a |
| Zn | Total | 748 ± 50b | 986 ± 113a |
| | F1 | 54.9 ± 3.7 | 83.4 ± 6.8 |
| | F3 | 19 ± 3b | 34 ± 13a |
| | F4 | 750 ± 45a | 428 ± 60b |
| Ni | Total | 29 ± 2b | 81 ± 7a |
| | F1 | 4.7 ± 0.6b | 10.3 ± 0.2a |
| | F2 | 3.4 ± 0.6b | 39 ± 2a |
| | F3 | 12 ± 1c | 22 ± 1d |