

Appendix 4: soil nutrient concentrations after first year of growth, expressed as a percent of initial soil nutrient concentrations.

| Trial crop | Row type | Depth | N | P | K | Al | B | Ca | Cl | Co | Cu | Fe | I | Mg | Mn | Mo | Na | Ni | S | Se | Si | Zn |
|-----------------------|---------------|--------|--------------|--------------|--------|----------------|--------------|--------|--------|--------|--------------|--------------|--------|--------------|--------------|--------------|----|----|---|----|----|--------|
| <i>A. retroflexus</i> | extraction | 0-6" | 55.4% | 57.2% | 93.1% | 2362.1% | 80.1% | 110.4% | 88.1% | 102.9% | 100.8% | 137.2% | 121.2% | 92.1% | 105.2% | 52.0% | | | | | | 92.6% |
| | | 6-12" | 77.8% | 64.2% | 94.1% | 2473.6% | 103.7% | 107.8% | 95.5% | 110.3% | 102.5% | 131.6% | 152.1% | 74.8% | 106.6% | 69.4% | | | | | | 102.3% |
| | | 12-24" | 132.9% | 126.0% | 72.7% | 1941.4% | 219.3% | 76.9% | 97.5% | 82.6% | 88.3% | 93.3% | 175.0% | 41.1% | 77.8% | 166.8% | | | | | | 94.3% |
| | chop and drop | 0-6" | 60.5% | 51.5% | 66.6% | 2197.5% | 48.6% | 53.1% | 57.4% | 97.6% | 41.9% | 59.7% | 101.6% | 47.4% | 48.9% | 50.1% | | | | | | 58.3% |
| | | 6-12" | 96.2% | 99.8% | 64.0% | 1795.4% | 72.2% | 52.9% | 68.8% | 78.8% | 47.5% | 68.8% | 160.6% | 46.2% | 45.6% | 104.6% | | | | | | 66.4% |
| | | 12-24" | 116.8% | 126.4% | 69.5% | 2054.6% | 84.4% | 55.3% | 78.1% | 88.3% | 55.7% | 69.6% | 198.0% | 42.2% | 50.3% | 121.5% | | | | | | 74.8% |
| <i>C. album</i> | extraction | 0-6" | 99.2% | 86.8% | 85.8% | 2364.8% | 157.7% | 92.3% | 96.3% | 103.2% | 96.0% | 88.2% | 174.0% | 64.3% | 89.4% | 100.3% | | | | | | 87.6% |
| | | 6-12" | 90.4% | 95.0% | 87.4% | 2118.6% | 89.3% | 93.3% | 87.7% | 95.7% | 87.4% | 85.5% | 127.0% | 72.4% | 87.9% | 89.6% | | | | | | 86.6% |
| | | 12-24" | 95.8% | 100.7% | 97.0% | 2561.4% | 79.7% | 101.3% | 96.8% | 113.5% | 97.0% | 110.5% | 129.1% | 60.8% | 98.6% | 88.9% | | | | | | 93.9% |
| | chop and drop | 0-6" | 90.6% | 69.7% | 88.6% | 2163.3% | 161.1% | 90.7% | 98.2% | 92.7% | 109.8% | 74.9% | 122.4% | 96.0% | 94.3% | 102.1% | | | | | | 92.9% |
| | | 6-12" | 85.5% | 67.0% | 108.5% | 2605.5% | 107.2% | 108.9% | 96.5% | 118.5% | 120.3% | 81.7% | 119.3% | 89.9% | 116.8% | 76.3% | | | | | | 105.9% |
| | | 12-24" | 95.3% | 85.4% | 98.5% | 2159.7% | 95.1% | 82.4% | 101.4% | 105.8% | 122.9% | 34.7% | 297.0% | 88.1% | 108.0% | 76.3% | | | | | | 91.3% |
| <i>S. peregrinum</i> | extraction | 0-6" | 118.6% | 81.1% | 80.7% | 2212.7% | 122.2% | 64.9% | 95.5% | 101.7% | 65.5% | 56.4% | 185.1% | 71.1% | 61.6% | 124.8% | | | | | | 91.3% |
| | | 6-12" | 117.5% | 90.9% | 75.6% | 2427.0% | 99.4% | 80.4% | 97.7% | 109.8% | 55.7% | 54.2% | 205.3% | 72.3% | 70.3% | 113.5% | | | | | | 86.7% |
| | | 12-24" | 147.8% | 113.4% | 78.9% | 2455.8% | 125.4% | 66.3% | 96.3% | 107.8% | 59.7% | 72.6% | 205.7% | 74.3% | 60.4% | 148.8% | | | | | | 97.4% |
| | chop and drop | 0-6" | 83.6% | 91.0% | 79.4% | 2132.6% | 140.8% | 86.9% | 89.2% | 93.0% | 88.9% | 79.7% | 140.8% | 70.3% | 86.5% | 91.7% | | | | | | 86.9% |
| | | 6-12" | 93.4% | 113.0% | 78.1% | 2239.1% | 121.6% | 90.7% | 92.2% | 99.4% | 85.9% | 77.8% | 162.2% | 73.0% | 86.5% | 93.8% | | | | | | 92.4% |
| | | 12-24" | 87.8% | 108.2% | 77.7% | 2304.5% | 91.7% | 86.2% | 93.7% | 97.9% | 81.0% | 78.0% | 174.0% | 76.3% | 80.2% | 80.1% | | | | | | 85.5% |
| <i>T. officinale</i> | extraction | 0-6" | 71.4% | 60.8% | 116.8% | 2360.9% | 72.8% | 108.6% | 102.8% | 119.4% | 89.6% | 108.7% | 268.3% | 176.1% | 111.8% | 52.5% | | | | | | 92.4% |
| | | 6-12" | 88.9% | 78.3% | 127.9% | 2550.2% | 131.8% | 117.2% | 113.7% | 128.1% | 116.2% | 127.3% | 306.7% | 217.9% | 121.2% | 72.7% | | | | | | 107.1% |
| | | 12-24" | 156.6% | 140.8% | 151.4% | 2646.1% | 169.3% | 124.3% | 166.2% | 122.5% | 119.2% | 236.8% | | 143.9% | 128.0% | 135.0% | | | | | | 113.4% |
| | chop and drop | 0-6" | 76.9% | 86.5% | 117.2% | 2597.2% | 134.0% | 112.3% | 102.2% | 119.6% | 119.9% | 97.8% | 291.2% | 158.0% | 114.0% | 73.0% | | | | | | 104.4% |
| | | 6-12" | 90.2% | 89.5% | 109.9% | 2453.4% | 110.9% | 100.2% | 101.5% | 114.3% | 105.7% | 83.7% | 511.1% | 148.3% | 104.3% | 79.4% | | | | | | 99.8% |
| | | 12-24" | 96.7% | 105.0% | 98.8% | 2158.3% | 100.6% | 86.1% | 99.2% | 93.9% | 86.2% | 100.9% | | 102.4% | 88.2% | 87.6% | | | | | | 90.8% |
| <i>T. pratense</i> | extraction | 0-6" | 73.0% | 90.7% | 100.4% | 2312.3% | 36.7% | 105.7% | 118.0% | 102.3% | 106.9% | 85.5% | 124.9% | 74.8% | 112.3% | 60.7% | | | | | | 95.8% |
| | | 6-12" | 83.2% | 128.5% | 94.2% | 2102.4% | 109.2% | 100.6% | 112.2% | 100.2% | 105.0% | 82.9% | 120.7% | 63.0% | 104.2% | 91.7% | | | | | | 93.7% |
| | | 12-24" | 152.1% | 187.6% | 73.5% | 1814.9% | 260.2% | 72.0% | 118.0% | 78.5% | 95.0% | 41.3% | 146.0% | 59.1% | 77.8% | 229.5% | | | | | | 102.4% |
| | chop and drop | 0-6" | 60.8% | 80.1% | 101.7% | 2462.8% | 54.4% | 115.4% | 88.5% | 110.8% | 105.7% | 99.2% | 102.4% | 114.1% | 110.6% | 50.7% | | | | | | 96.4% |
| | | 6-12" | 77.9% | 127.3% | 89.3% | 2221.0% | 88.8% | 95.7% | 85.3% | 98.0% | 96.3% | 88.3% | 210.7% | 98.0% | 93.9% | 86.0% | | | | | | 92.3% |
| | | 12-24" | 104.8% | 162.4% | 79.0% | 2067.3% | 111.8% | 85.0% | 87.1% | 91.7% | 107.3% | 71.0% | 179.6% | 49.0% | 96.9% | 121.7% | | | | | | 97.8% |
| <i>U. dioica</i> | extraction | 0-6" | 50.1% | 43.0% | 92.6% | 2134.5% | 52.9% | 95.5% | 79.7% | 94.4% | 109.4% | 69.8% | 84.2% | 75.9% | 112.5% | 40.6% | | | | | | 87.1% |
| | | 6-12" | 75.1% | 59.8% | 84.2% | 2138.2% | 91.4% | 89.7% | 82.0% | 94.2% | 102.0% | 83.2% | 103.1% | 66.8% | 95.2% | 67.3% | | | | | | 85.5% |
| | | 12-24" | 136.0% | 104.7% | 70.7% | 1802.2% | 207.5% | 79.5% | 83.8% | 81.4% | 84.7% | 75.5% | 200.4% | 47.9% | 88.3% | 149.5% | | | | | | 93.1% |
| | chop and drop | 0-6" | 50.0% | 36.6% | 64.0% | 1903.1% | 63.6% | 54.9% | 63.6% | 81.5% | 45.0% | 62.8% | 102.2% | 63.3% | 50.1% | 56.0% | | | | | | 62.0% |
| | | 6-12" | 88.8% | 61.8% | 68.9% | 2035.9% | 67.9% | 54.3% | 71.4% | 88.6% | 51.8% | 64.0% | 116.7% | 43.1% | 51.8% | 100.6% | | | | | | 71.6% |
| | | 12-24" | 129.5% | 91.2% | 67.8% | 2042.2% | 183.8% | 56.4% | 82.1% | 88.6% | 64.8% | 63.2% | 201.6% | 39.6% | 56.9% | 151.8% | | | | | | 81.4% |
| Fallow | - | 0-6" | 63.2% | 75.9% | 105.7% | 2419.0% | 74.6% | 120.6% | 94.7% | 107.9% | 119.2% | 145.8% | 130.2% | 94.4% | 124.8% | 51.0% | | | | | | 95.4% |
| | | 6-12" | 94.4% | 106.0% | 90.8% | 2211.9% | 124.6% | 96.2% | 98.7% | 100.2% | 108.2% | 103.8% | 120.0% | 62.8% | 100.1% | 87.3% | | | | | | 99.1% |
| | | 12-24" | 106.3% | 110.3% | 83.5% | 2101.5% | 111.4% | 87.5% | 96.5% | 92.1% | 94.9% | 79.0% | 206.5% | 40.8% | 94.5% | 109.0% | | | | | | 92.5% |