

Table 3. Mean *Setaria faberi* viable seed and emerged seedling densities by sequence and rotation. Means \pm 1 SE of square root transformed data are shown in parentheses, except for intentionally added viable seeds, for which it was assumed a constant number was added to all treatments.

| | Background viable seed density in soil to 20 cm, 2002 no. m ⁻² | Intentionally added viable seeds, 2002 | Total seedling emergence, 2003-2005 | Final viable seed density in soil to 20 cm, 2006 |
|------------------------|--|--|-------------------------------------|--|
| Sequence | | | | |
| 1 | 0 (0.00 \pm 0.00) | 1876 | 267 (16.23 \pm 0.61) b | 166 (9.84 \pm 4.79) |
| 2 | 0 (0.00 \pm 0.00) | 1876 | 190 (13.73 \pm 0.61) bc | 48 (5.84 \pm 2.12) |
| 3 | 22 (2.35 \pm 2.35) | 1876 | 262 (16.17 \pm 0.12) b | 182 (13.04 \pm 1.95) |
| 4 | 0 (0.00 \pm 0.00) | 1876 | 472 (21.51 \pm 1.77) a | 71 (7.23 \pm 2.50) |
| 5 | 88 (6.61 \pm 3.82) | 1876 | 137 (11.41 \pm 1.49) c | 348 (18.11 \pm 2.55) |
| 6 | 0 (0.00 \pm 0.00) | 1876 | 265 (16.27 \pm 0.10) b | 119 (10.37 \pm 1.90) |
| 7 | 44 (3.31 \pm 3.31) | 1876 | 460 (20.68 \pm 3.27) a | 32 (3.52 \pm 3.25) |
| 8 | 22 (2.34 \pm 2.34) | 1876 | 154 (12.38 \pm 0.61) bc | 108 (8.72 \pm 2.98) |
| 9 | 44 (3.31 \pm 3.31) | 1876 | 115 (10.64 \pm 0.87) c | 150 (10.99 \pm 3.14) |
| Rotation system | | | | |
| 2-year | 0 (0.00 \pm 0.00) | 1876 | 227 (14.98 \pm 0.62) | 107 (7.84 \pm 2.54) |
| 3-year | 37 (2.99 \pm 1.58) | 1876 | 290 (16.36 \pm 1.43) | 200 (12.79 \pm 1.82) |
| 4-year | 27 (2.24 \pm 1.22) | 1876 | 248 (14.99 \pm 1.26) | 105 (8.70 \pm 1.46) |

Within columns, sequences not followed by the same lowercase letter and rotation systems not followed by the same upper case letter are significantly different ($p < 0.05$); an absence of letters indicates a lack of significant differences.