Table 4. Effect of soil compost and lime treatments (*n* = 12) on total culturable bacteria, fluorescent pseudomonads, total fungi, and *Fusarium oxysporum* in sandy soils collected from a commercial tomato, fall 2010.

|  |  |  |
| --- | --- | --- |
| Soil microbial community/soil treatments | Super MAG (ton/acre) | Culturable colonies (log10 CFU g-1)z |
| 16 Sept. | 7 Oct. | 19 Nov. |
| Total bacteria |  |  |  |  |
|  | Compost, 30 ton/acre | 0.75 |  6.12 ay | 5.20 b | 5.45 a |
|  | Compost, 20 ton/acre  | 0.50 | 6.13 a | 5.20 b | 5.38 a |
|  | Compost, 10 ton/acre | 0.25 | 6.12 a | 4.94 a | 5.39 a |
|  | Hi-CAL, 10 ton/acre | 0.25 | 5.91 a | 4.85 a | 5.37 a |
|  | Unamended control | 0.50 | 5.97 a |  5.03 ab | 5.44 a |
| Fluorescent pseudomonads |  |  |  |  |
|  | Compost, 30 ton/acre | 0.75 | 3.86 a | 3.06 a | 3.76 a |
|  | Compost, 20 ton/acre  | 0.50 | 3.86 a | 3.28 a | 3.67 a |
|  | Compost, 10 ton/acre | 0.25 | 3.80 a | 3.61 a | 4.27 a |
|  | Hi-CAL, 10 ton/acre | 0.25 | 3.58 a | 3.40 a | 4.03 a |
|  | Unamended control | 0.50 | 3.91 a | 3.19 a | 4.35 a |
| Total fungi |  |  |  |  |
|  | Compost, 30 ton/acre | 0.75 | 3.86 a | 1.30 a | 2.24 a |
|  | Compost, 20 ton/acre  | 0.50 | 1.97 a | 1.33 a | 2.23 a |
|  | Compost, 10 ton/acre | 0.25 | 1.27 a | 1.85 b | 2.25 a |
|  | Hi-CAL, 10 ton/acre | 0.25 | 1.33 a | 1.85 b | 2.29 a |
|  | Unamended control | 0.50 | 1.31 a | 1.95 b | 2.17 a |
| *Fusarium oxysporum* |  |  |  |  |
|  | Compost, 30 ton/acre | 0.75 | 0.88 a | 0.50 a | 0.98 a |
|  | Compost, 20 ton/acre  | 0.50 | 1.28 a | 0.00 a | 0.94 a |
|  | Compost, 10 ton/acre | 0.25 | 0.40 a | 0.65 a | 0.80 a |
|  | Hi-CAL, 10 ton/acre | 0.25 | 1.44 a | 0.00 a | 1.56 a |
|  | Unamended control | 0.50 | 0.65 a | 0.37 a | 1.19 a |

zlog10 CFU g-1= culturable forming units

yMeans within column followed by different letters are significantly different based on LSD (α = 0.05) test was used to compare least squares means among treatments at each date.

xLevel of detection (LOD)= 1 x 10^4 cfu/g (equivalent to log 10 = 4.0) for total bacteria and fluorescent pseudomonads = 20 cfu/g (equivalent to log 10 = 1.3) for total fungi and for Fusarium oxysporum