**Table 2. Difference of soil microbial abundance among different alfalfa varieties at dominant genus level**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Genus | VT | KS | AH | P-Values |
| Bacterial | *Arthrobacter* | 6.71 ± 0.94 a | 3.66 ± 0.25 b | 3.94 ± 0.82 b | 0.004 |
| *JG30-KF-CM45* | 4.80 ± 0.65 a | 4.17 ± 0.29 a | 5.04 ± 0.53 a | 0.181 |
| *Gemmatimonadaceae* | 3.10 ± 0.24 a | 3.18 ± 0.39 a | 3.02 ± 0.67 a | 0.084 |
| *Actinobacteria* | 2.54 ± 0.63 a | 2.67 ± 0.48 a | 2.94 ± 0.67 a | 0.341 |
| *Geminicoccaceae* | 2.11 ± 0.15 a | 2.15 ± 0.27 a | 2.50 ± 0.13 a | 0.088 |
| *KD4-96* | 1.83 ± 0.26 a | 2.18 ± 0.27 a | 2.47 ± 0.42 a | 0.129 |
| *TK10* | 1.83 ± 0.05 a | 1.74 ± 0.47 a | 1.71 ± 0.11 a | 0.866 |
| *Gaiella* | 1.61 ± 0.03 b | 1.67 ± 0.22 b | 2.16 ± 0.35 a | 0.045 |
| *Rokubacteriales* | 1.51 ± 0.14 b | 1.85 ± 0.62 a | 1.78 ± 0.06 a | 0.033 |
| *Actinomarinales* | 1.51 ± 0.22 a | 1.96 ± 0.85 a | 1.59 ± 0.35 a | 0.596 |
| Fungal | *Fusarium* | 6.03 ± 0.82 a | 7.20 ± 0.63 a | 14.84 ± 0.77 b | 0.000 |
| *Cladosporium* | 4.26 ± 0.69 b | 8.64 ± 0.60 a | 9.92 ± 0.71 a | 0.000 |
| *Sordariomycetes* | 13.46 ± 0.19 a | 4.54 ± 0.34 b | 3.04 ± 0.41 c | 0.000 |
| *Stachybotryaceae* | 7.70 ± 0.78 a | 1.15 ± 0.45 b | 7.88 ± 1.32 a | 0.000 |
| *Talaromyces* | 6.06 ± 0.87 a | 4.54 ± 0.67 a | 0.86 ± 0.50 b | 0000 |
| *Mortierella* | 4.34 ± 0.63 a | 3.94 ± 0.78 a | 2.35 ± 0.24 b | 0.014 |
| *Hypocreales* | 5.48 ± 0.72 a | 4.22 ± 0.90 a | 1.80 ± 0.27 b | 0.002 |
| *Nectriaceae* | 1.98 ± 0.42 b | 2.50 ± 0.25 b | 4.53 ± 0.85 a | 0.003 |
| *Alternaria* | 0.81 ± 0.08 b | 4.46 ± 0.96 a | 2.94 ± 0.88 a | 0.003 |
| *Penicilium* | 1.72 ± 0.32 a | 0.20 ± 0.13 b | 0.24 ± 0.17 b | 0.000 |

The different letters in the same column indicate the statistical significance among the microbial diversity indexes. The effective values are as follows: the same letter, P > 0.05; adjacent letters, P < 0.05; interphase letters, P < 0.01.