**TABLES AND FIGURES**

**Tables**

**Table 1**. The effect of lime and gypsum application to soil H2O pH within 0-20 cm depth

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Lime  (ton ha-1) | Gypsum (ton ha-1) | | | | Rerata |
| 0 | 0.25 | 0.5 | 1 |
| 0 | 5.72 | 5.77 | 5.82 | 5.69 | 5.75 a |
| 1 | 5.94 | 5.77 | 5.90 | 5.90 | 5.88 a |
| 2 | 6.05 | 6.06 | 6.11 | 6.17 | 6.10 a |
| 3 | 5.98 | 5.82 | 5.90 | 5.98 | 5.92 a |
| Rerata | 5.92 p | 5.85 p | 5.93 p | 5.93 p | - |

Remark : The average number followed by the same letter in row or column shows no significant difference based on DMRT at 5%

- : no significant interaction

**Table 2**. The effect of lime and gypsum application to soil H2O pH within 20-40 cm depth

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Lime  (ton ha-1) | Gypsum (ton ha-1) | | | | Rerata |
| 0 | 0.25 | 0.5 | 1 |
| 0 | 5.38 | 5.24 | 5.11 | 5.27 | 5.25 a |
| 1 | 5.44 | 5.64 | 5.40 | 5.29 | 5.44 a |
| 2 | 5.75 | 5.50 | 5.51 | 5.85 | 5.65 a |
| 3 | 5.42 | 5.41 | 5.94 | 5.52 | 5.57 a |
| Rerata | 5.50 p | 5.45 p | 5.49 p | 5.48 p | - |

Remark : The average number followed by the same letter in row or column shows no significant difference based on DMRT at 5%

- : no significant interaction

**Table 3**. The effect of lime and gypsum application to available Fe content in soil (ppm) within 0-20 cm depth

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Lime  (ton ha-1) | Gypsum (ton ha-1) | | | | Rerata |
| 0 | 0.25 | 0.5 | 1 |
| 0 | 463.34 | 425.22 | 451.05 | 491.09 | 457.68 c |
| 1 | 392.11 | 363.54 | 418.39 | 405.80 | 394.96 b |
| 2 | 368.50 | 343.14 | 359.89 | 327.92 | 349.86 a |
| 3 | 417.42 | 289.76 | 292.09 | 313.00 | 328.07 a |
| Rerata | 410.34 q | 355.42 p | 380.36 pq | 384.45 pq | - |

Remark : The average number followed by the same letter in row or column shows no significant difference based on DMRT at 5%

- : no significant interaction

**Tabel 4**. The effect of lime and gypsum application to available Fe content in soil (ppm) within 20-40 cm depth

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Lime  (ton ha-1) | Gypsum (ton ha-1) | | | | Rerata |
| 0 | 0.25 | 0.5 | 1 |
| 0 | 352.30 | 362.31 | 305.12 | 369.67 | 347.35 a |
| 1 | 364.45 | 323.40 | 355.50 | 326.52 | 342.47 a |
| 2 | 414.07 | 291.55 | 308.27 | 317.24 | 332.78 a |
| 3 | 307.24 | 290.01 | 242.86 | 237.02 | 269.28 a |
| Rerata | 359.51 p | 316.82 p | 302.94 p | 312.61 p | - |

Remark : The average number followed by the same letter in row or column shows no significant difference based on DMRT at 5%

- : no significant interaction

**Table 5**. The effect of lime and gypsum application to available Mn content within 0-20 cm depth

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Lime  (ton ha-1) | Gypsum (ton ha-1) | | | | Rerata |
| 0 | 0.25 | 0.5 | 1 |
| 0 | 11.19 | 7.25 | 6.97 | 10.09 | 8.87 a |
| 1 | 8.74 | 6.30 | 7.07 | 8.13 | 7.56 a |
| 2 | 7.69 | 7.33 | 4.42 | 7.07 | 6.63 a |
| 3 | 6.76 | 5.33 | 4.64 | 3.84 | 5.14 a |
| Rerata | 8.60 p | 6.56 p | 5.78 p | 7.28 p | - |

Remark : The average number followed by the same letter in row or column shows no significant difference based on DMRT at 5%

- : no significant interaction

**Table 6**. The effect of lime and gypsum application to available Mn content within 20-40 cm depth

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Lime  (ton ha-1) | Gypsum (ton ha-1) | | | | Rerata |
| 0 | 0.25 | 0.5 | 1 |
| 0 | 9.21 | 5.82 | 5.93 | 5.84 | 6.70 b |
| 1 | 6.11 | 7.00 | 6.78 | 5.27 | 6.29 b |
| 2 | 7.17 | 6.00 | 4.54 | 6.01 | 5.93 b |
| 3 | 3.77 | 4.04 | 4.37 | 3.23 | 3.85 a |
| Rerata | 6.56 p | 5.71 p | 5.40 p | 5.09 p | - |

Remark : The average number followed by the same letter in row or column shows no significant difference based on DMRT at 5%

- : no significant interaction

**Table 7**. The effect of lime and gypsum application to available Cu content in soil (ppm) within 0-20 cm depth

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Lime  (ton ha-1) | Gypsum (ton ha-1) | | | | Rerata |
| 0 | 0.25 | 0.5 | 1 |
| 0 | 0.32 | 0.32 | 0.33 | 0.33 | 0.33 a |
| 1 | 0.35 | 0.36 | 0.37 | 0.29 | 0.34 a |
| 2 | 0.28 | 0.31 | 0.31 | 0.31 | 0.30 a |
| 3 | 0.30 | 0.30 | 0.29 | 0.34 | 0.31 a |
| Rerata | 0.32 p | 0.32 p | 0.33 p | 0.32 p | - |

Remark : The average number followed by the same letter in row or column shows no significant difference based on DMRT at 5%

- : no significant interaction

**Table 8**. The effect of lime and gypsum application to available Cu content in soil (ppm) within 20-40 cm depth

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Lime  (ton ha-1) | Gypsum (ton ha-1) | | | | Rerata |
| 0 | 0.25 | 0.5 | 1 |
| 0 | 0.31 | 0.32 | 0.33 | 0.32 | 0.32 a |
| 1 | 0.35 | 0.35 | 0.31 | 0.30 | 0.33 a |
| 2 | 0.30 | 0.30 | 0.30 | 0.32 | 0.31 a |
| 3 | 0.30 | 0.30 | 0.29 | 0.35 | 0.31 a |
| Rerata | 0.31 p | 0.32 p | 0.31 p | 0.32 p | - |

Remark : The average number followed by the same letter in row or column shows no significant difference based on DMRT at 5%

- : no significant interaction

**Table 9**. The effect of lime and gypsum application to available Zn content in soil (ppm) within 0-20 cm depth

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Lime  (ton ha-1) | Gypsum (ton ha-1) | | | | Rerata |
| 0 | 0.25 | 0.5 | 1 |
| 0 | 0.38 | 0.46 | 0.33 | 0.48 | 0.41 a |
| 1 | 0.44 | 0.36 | 0.51 | 0.37 | 0.42 a |
| 2 | 0.19 | 0.36 | 0.27 | 0.32 | 0.29 a |
| 3 | 0.28 | 0.25 | 0.28 | 0.29 | 0.27 a |
| Rerata | 0.32 p | 0.36 p | 0.35 p | 0.37 p | - |

Remark : The average number followed by the same letter in row or column shows no significant difference based on DMRT at 5%

- : no significant interaction

**Table 10**. The effect of lime and gypsum application to available Zn content in soil (ppm) within 20-40 cm depth

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Lime  (ton ha-1) | Gypsum (ton ha-1) | | | | Rerata |
| 0 | 0.25 | 0.5 | 1 |
| 0 | 0.27 | 0.36 | 0.28 | 0.27 | 0.30 a |
| 1 | 0.24 | 0.18 | 0.18 | 0.27 | 0.22 a |
| 2 | 0.19 | 0.23 | 0.33 | 0.28 | 0.26 a |
| 3 | 0.14 | 0.24 | 0.15 | 0.35 | 0.22 a |
| Rerata | 0.21 p | 0.25 p | 0.24 p | 0.29 p | - |

Remark : The average number followed by the same letter in row or column shows no significant difference based on DMRT at 5%

- : no significant interaction

**Table 11**. The effect of lime and gypsum application to the quality of cane juice brix (%)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Lime  (ton ha-1) | Gypsum (ton ha-1) | | | | Rerata |
| 0 | 0,25 | 0,5 | 1 |
| 0 | 20,93 | 21,61 | 21,21 | 21,17 | 21,23 a |
| 1 | 21,25 | 21,13 | 21,20 | 21,32 | 21,23 a |
| 2 | 21,17 | 21,69 | 20,68 | 20,96 | 21,13 a |
| 3 | 21,01 | 20,64 | 20,67 | 20,68 | 20,75 a |
| Rerata | 21,09 p | 21,27 p | 20,94 p | 21,03 p | - |

Remark : The average number followed by the same letter in row or column shows no significant difference based on DMRT at 5%

- : no significant interaction

**Figures**

Figure 1. The correlation between Cu and cane juice quality within 0-20 cm depth

Figure 2. The correlation between Cu and cane juice quality within 20-40 cm depth