Table 6. Evaluation of banding phosphorous and manganese, and foliar Mn and P applications for improving productivity of onions on muck soils - small-plot field trials, 2010: Plant tissue analysis, 8-10 leaf stage.

|  |  |  |  |
| --- | --- | --- | --- |
|  **Grower Location** | **CY Batavia****July 29** | **Star Webster****July 30** | **Mortellaro Elba****July 29** |
| **Treatment\*\*** | **Mn (ppm)** | **P (ppm)** | **Mn (ppm)** | **P (ppm)** | **Mn (ppm)** | **P (ppm)** |
| Broadcast NPK | 43 | 3,169 | 64.9 | 4,224 | 123 | 4,445 |
| Broadcast NPK + foliar Mn | 34 | 3,082 | 64.3 | 4,174 | 125 | 4,328 |
| Broadcast NPK + foliar P | 42 | 3,070 | 76.1 | 3,482 | 116 | 4,094 |
| Band P+Mn\* | 34 | 2,854 | 54.6 | 4,295 | 114 | 4,452 |
| Band P+Mn\* + foliar Mn | 39 | 3,077 | 66.5 | 4,285 | 118 | 4,061 |
| Band P+Mn\* + foliar Mn+P | 27 | 2,945 | 76.5 | 3,793 | 117 | 4,394 |
| ***P Value (α=0.05)*** | ***NS*** | ***NS*** | ***NS*** | ***NS*** | ***NS*** | ***NS*** |
| **Broadcast vs. Band (pooled across foliar applications)** |
| Broadcast NPK | 40 | 3,107 | 68.4 | 3,960 | 121 | 4,289 |
| Band P+Mn\* | 33 | 2,959 | 65.9 | 4,124 | 117 | 4,303 |
| ***P Value (α=0.05)*** | ***NS*** | ***NS*** | ***NS*** | ***NS*** | ***NS*** | ***NS*** |
| **Foliar applications (pooled across soil applications)** |
| None | 38 | 3,012 | 59.8 | 4,259 | 119 | 4,448 |
| Mn | 37 | 3,080 | 65.4 | 4,229 | 122 | 4,194 |
| P | 42 | 3,070 | 76.1 | 3,482 | 116 | 4,094 |
| Mn + P | 27 | 2,945 | 76.5 | 3,793 | 117 | 4,394 |
| ***P Value (α=0.05)*** | ***NS*** | ***NS*** | ***NS*** | ***NS*** | ***NS*** | ***NS*** |
| **Summary of plant tissue results for other nutrients** |
| **ppm** | **CY Batavia** | **Star Webster** | **Mortellaro Elba** |
| **avg** | **min** | **max** | **avg** | **min** | **max** | **avg** | **min** | **max** |
| K | 29,120 | 21,571 | 35,458 | 29,708 | 5,470 | 39,361 | 27,764 | 24,791 | 31,705 |
| Ca | 12,838 | 10,180 | 17,528 | 23,228 | 16,357 | 29,674 | 12,262 | 9,947 | 16,016 |
| Mg | 2,452 | 1,783 | 3,350 | 2,249 | 1,871 | 2,502 | 1,379 | 1,160 | 1,619 |
| Al | 15.6 | 5.7 | 39.4 | 26.0 | 14.5 | 46.3 | 11.7 | 7.5 | 18.2 |
| Fe | 28.7 | 21.7 | 50.2 | 39.0 | 31.7 | 46.1 | 37.2 | 28.1 | 68.4 |
| Zn | 22.8 | 16.6 | 28.4 | 39.1 | 26.5 | 51.2 | 22.8 | 18.5 | 29.0 |
| B | 17.3 | 14.0 | 20.2 | 32.7 | 27.3 | 39.4 | 26.5 | 21.3 | 33.9 |
| Na | 110 | 72 | 150 | 227 | 166 | 291 | 95 | 68 | 132 |

\*N and K were applied broadcast and incorporated pre-plant. \*\*See Table 1 for actual NPK applied in the bands and broadcast at each of the trial sites.