**Table S1.** Protocol of Hoagland solution (HS) and HS without phosphate

|  |  |  |  |
| --- | --- | --- | --- |
| **Hoagland solution**  **(for normal nutrition control)** | | | |
|  | **Concentration** | | **Mixed stock solution #\*** |
| **mM** | **mg/L** |
| KNO3 | 5 | 505 | 1 |
| Ca(NO3)2 x 4 H2O | 5 | 1180 | 1 |
| MgSO4 x 7 H2O | 2 | 493 | 2 |
| MnCl2 x 4 H2O | 0.0091 | 1.81 | 2 |
| ZnSO4 x 7 H2O | 0.0008 | 0.22 | 2 |
| CuSO4 x 5 H2O | 0.0003 | 0.08 | 2 |
| H3BO3 | 0.0463 | 2.86 | 3 |
| Ferric sodium EDTA (CAS Number: 15708-41-5) | 0.014 | 5 | 3 |
| Na2MoO4 x 2 H2O | 0.0005 | 0.12 | 3 |
| K-PO4 | 1 | 117.3 mg KH2PO4 + 31.5 mg K2HPO4 x 2 H2O \*\* | 4 |
|  |  |  |  |
| **Hoagland solution without phosphate**  **(for pots with phosphorite powder and for no-phosphorous control pots)** | | | |
|  | **Concentration** | | **Mixed stock solution #** |
| **mM** | **mg/L** |
| KNO3 | 5 | 505 | 1 |
| Ca(NO3)2 x 4 H2O | 5 | 1180 | 1 |
| MgSO4 x 7 H2O | 2 | 493 | 2 |
| MnCl2 x 4 H2O | 0.0091 | 1.81 | 2 |
| ZnSO4 x 7 H2O | 0.0008 | 0.22 | 2 |
| CuSO4 x 5 H2O | 0.0003 | 0.08 | 2 |
| H3BO3 | 0.0463 | 2.86 | 3 |
| Ferric sodium EDTA (CAS Number: 15708-41-5) | 0.014 | 5 | 3 |
| Na2MoO4 x 2 H2O | 0.0005 | 0.12 | 3 |

\* - For the ingredients labeled by the same # of mixed stock solution the combined stock solutions (1000 time more concentrated than listed in table) were prepared. These solutions were added 1 ml each to 997 ml of distilled water just before use.

\*\* - Combination of mono- and dipotassium phosphate was used to obtain an optimal pH of the solution