|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| The following data is the final data collection for the oat and wheat under all conditions.  Plant Light, Oat   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | Height 1 | Root 1 | Height 2 | Root 2 | Height 3 | Root 3 | Height 4 | Root 4 | | PO4 | 6.75 | 3.3125 | 4 | 2.875 |  |  |  |  | | PO5 | 7 | 2 | 2.125 | 1.25 | .5 | .5 |  |  | | PO6 | 7 | 2.75 | 6.875 | 3.875 |  |  |  |  | | PO7 | 7.5625 | 5.125 |  |  |  |  |  |  | | PO8 | 7.4375 | 4 | .875 | 5.375 | 6.6875 | 2.75 |  |  | | PO9 | 6.125 | 4.125 |  |  |  |  |  |  | | PO10 | 4.5 | 3.3125 | 6.25 | 2.9375 | 7.4375 | 3.1875 | 7.75 | 4.25 | | PO11 | 7.5625 | 5.5 |  |  |  |  |  |  | | PO12 | 6.875 | 2.5 |  |  |  |  |  |  | | PO13 | 5.6875 | 2.875 |  |  |  |  |  |  | | PO14 | 7.5 | 3.5 | 5.5 | 2.6875 |  |  |  |  | | PO15 | 7 | 3.75 | 6.5 | 4 | 7.0625 | 3.25 | 1.75 | 1.625 | | PO16 | 8 | 4 | 7.0625 | 4.875 | 7 | 3.375 | 1.75 | 0 | | PO17 | 6 | 4.125 | 4.875 | 3.75 |  |  |  |  | | PO18 | 6.25 | 3.25 | 36893 | 0 |  |  |  |  | | PO19 | 7.625 | 5.25 | little | .1875 |  |  |  |  | | PO20 | 5.5625 | 3 |  |  |  |  |  |  | | PO22 | 6.5 | 4.5 |  |  |  |  |  |  | | PO23 | 7.625 | 4.125 | 6.125 | 3.875 |  |  |  |  | | PO24 | 7.625 | 2.75 | 4.25 | 2.5 |  |  |  |  |   Plant Light, Wheat   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | Height 1 | Root 1 | Height 2 | Root 2 | Height 3 | Root 3 | Height 4 | Root 4 |  | | PW1 | 4.8125 | 7 | 9.875 | 8.75 | 7.5 | 7.125 | 7.375 | 8.75 |  | | PW2 | 12 | 6.5 | 9.1875 | 6.625 | 11.1875 | 8.5 | .5 | 0 |  | | PW3 | 3.25 | 4.75 | 5.875 | 5.25 | 10.5 | 6.1875 | 9.25 | 8.5 | (double sprout) | | PW4 | 7.4375 | 5.5 | 8.125 | 7.5 | 10.5 | 5.125 | 7.5 | 6.75 |  | | PW5 | 4.5 | 4.125 | 9.5 | 6 | 9 | 11.25 | 10 | 5.875 |  | | PW6 | 7.875 | 5.75 | 7.75 | 3.75 | 9.5 | 3.875 | 9.5 | 6.125 |  | | PW7 | 9.5 | 10.75 | 7.375 | 4.75 | 7.25 | 3.375 | 8.875 | 5.5 |  | | PW8 | 9.25 | 8.5 | 4.125 | 5.875 | 10.125 | 7 | 9 | 8.5 |  | | PW9 | 2 | 2.375 | 6.625 | 6.25 | 9.5 | 6.125 | 6.5 | 6.25 |  | | PW10 | 1 | 2.75 | 5.5 | 5 | 10.75 | 7.75 | 7.625 | 7 | (double sprout) | | PW11 | 1.875 | 6.5 | 7.375 | 6.25 | 9.5 | 6.75 | 9.125 | 7.5 |  | | PW12 | 0 | 2.625 | 7.25 | 5 | 9.125 | 6.5 | 7.25 | 5.5 |  | | PW13 | 8.75 | 8.375 | 7.1875 | 6.75 | 10.0625 | 6.5 | 9 | 6.75 |  | | PW14 | 9.25 | 8.5 | 8.5 | 7.375 | 6.375 | 4.5 | 3.9375 | 3 |  | | PW15 | 7.75 | 8 | 6.625 | 6.75 | 10.1875 | 5 | 7.875 | 7 |  | | PW16 | 6.75 | 6.5625 | 8.75 | 3.625 | 6.5 | 5.5 | 7.5 | 7.75 |  | | PW17 | 7 | 3.875 | 8.5 | 4.3125 | 9 | 5.1875 | 7.125 | 6.75 |  | | PW18 | 4.875 | 6.5 | 9.0625 | 9 | 8.75 | 6.75 | 5.875 | 5 |  | | PW19 | 7.75 | 6.25 | 4.5 | 3.625 | 5.125 | 8.5 | 9 | 9 |  | | PW20 | 7.25 | 5.5 | 6.375 | 3.125 | 7.5 | 5.875 | 7.5 | 7.25 |  | | PW21 | 5.5 | 3.75 | 7.75 | 9.375 | 3.875 | 6.5 | 5.125 | 5.5 |  | | PW22 | 4.625 | 5.5 | 6.75 | 7.75 | 9.875 | 5.5 | 7.25 | 6.25 |  | | PW23 | 5 | 6.25 | 10.5 | 7.875 | 2.25 | 3.25 | 5.5 | 5.875 |  | | PW24 | 1.625 | 6.375 | 8.875 | 6 | 4.75 | 4.25 | 9.25 | 4 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  | Height 5 | Root 5 | Height 6 | Root 6 | Height 7 | Root 7 | | PW1 | 4.75 | 6.5 | 11 | 7.5625 |  |  | | PW2 |  |  |  |  |  |  | | PW3 | 6.25 | 3.5 | 6.75 | 2.75 |  |  | | PW4 |  |  |  |  |  |  | | PW5 | 9.375 | 4.5 |  |  |  |  | | PW6 | 9 | 5.5 |  |  |  |  | | PW7 | 8.75 | 5 |  |  |  |  | | PW8 | 8.375 | 5.25 |  |  |  |  | | PW9 | 6.75 | 7 |  |  |  |  | | PW10 |  |  |  |  |  |  | | PW11 |  |  |  |  |  |  | | PW12 |  |  |  |  |  |  | | PW13 | 8.25 | 8.125 |  |  |  |  | | PW14 | 9.375 | 4.75 |  |  |  |  | | PW15 | 6 | 7.125 | 6.3125 | 5 | 8.5625 | 8.375 | | PW16 | 6.25 | 6.125 | 10.25 | 8.125 | 9.0625 | 6.75 | | PW17 | 6.75 | 7.125 | 7.6875 | 9 |  |  | | PW18 | 8.875 | 4.375 |  |  |  |  | | PW19 |  |  |  |  |  |  | | PW20 | 8.25 | 5.5 |  |  |  |  | | PW21 | 9.125 | 9.5 | 9.75 | 9.875 |  |  | | PW22 |  |  |  |  |  |  | | PW23 | 9.25 | 7.25 |  |  |  |  | | PW24 | 5.875 | 4 |  |  |  |  |   Fluorescent Light, Oat   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | Height 1 | Root 1 | Height 2 | Root 2 | Height 3 | Root 3 | Height 4 | Root 4 | | FO1 | 7.625 | 3 | 7 | 3.5 |  |  |  |  | | FO3 | 7.3125 | 5.125 | 7.25 | 3.1875 |  |  |  |  | | FO4 | 6.3125 | 3.125 |  |  |  |  |  |  | | FO5 | 7.625 | 3.875 |  |  |  |  |  |  | | FO6 | 7.125 | 4.4375 |  |  |  |  |  |  | | FO7 | 7.1875 | 3.625 | 6.6875 | 3.625 |  |  |  |  | | FO8 | 6.625 | 3.625 |  |  |  |  |  |  | | FO9 | 6.375 | 4.125 | 7 | 3.75 | 5 | 3.25 | 5 | 2 | | FO10 | 8 | 2.625 | 6.625 | 3.75 |  |  |  |  | | FO11 | 6.5 | 3.125 | 7 | 3.125 | 7.5 | 3.875 |  |  | | FO12 | 6.75 | 4 | 6.125 | 3 |  |  |  |  | | FO13 | 6.875 | 2.625 |  |  |  |  |  |  | | FO15 | 3.25 | 1.125 |  |  |  |  |  |  | | FO16 | 4.875 | 1.875 | 6.3125 | 3.125 | 7 | 4 |  |  | | FO17 | 3.25 | 1.25 |  |  |  |  |  |  | | FO18 | 6 | 1 |  |  |  |  |  |  | | FO19 | 7.0625 | 4.375 | 7.125 | 4.25 |  |  |  |  | | FO20 | .625 | 1.5 |  |  |  |  |  |  | | FO21 | 6.375 | 3.25 | 7.125 | 4.375 |  |  |  |  | | FO22 | 6.875 | 3 | 6.125 | 3.25 |  |  |  |  | | FO23 | 7 | 4.8125 | 6.5 | 3.875 | 2.5 | 2.75 |  |  | | FO24 | 7.25 | 3.0625 |  |  |  |  |  |  |   Fluorescent Light, Wheat   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | Height 1 | Root 1 | Height 2 | Root 2 | Height 3 | Root 3 | Height 4 | Root 4 |  | | FW1 | 6.5 | 7.375 | .625 | 3.0625 | 5.875 | 7.25 | 6.625 | 8.25 | (double sprout) | | FW2 | 7 | 9 | 6.75 | 5.125 | 8.625 | 5.125 | 5.875 | 5.5 |  | | FW3 | 11 | 8.5 | 5 | 6 | 10.75 | 4 | 8 | 4.75 | (2 double sprouts) | | FW4 | .25 | 7.5 | .125 | 0 | 7.875 | 4.25 | 6.875 | 6.125 |  | | FW5 | 9.25 | 4.25 | 10.125 | 6.75 | 2.5 | 1.75 | 6.375 | 6 |  | | FW6 | 8.5 | 10.5 | 9.5 | 5.5 | 6.75 | 7.5 | 6.5 | 6.125 |  | | FW7 | 9.25 | 6 | 10.125 | 7.5 | 6.75 | 6.75 | 7.5 | 6 |  | | FW8 | 8.5 | 6.25 | 7.75 | 6.25 | 8.125 | 3.5 | 9 | 8.75 |  | | FW9 | 9.25 | 6.75 | 6.125 | 7.5 | 7 | 8.5 | 9.25 | 10 |  | | FW10 | 7.875 | 4.5 | 9.125 | 4.25 | 7.125 | 6.25 | 7.25 | 4.25 |  | | FW11 | 4.25 | 4.75 | 9.5 | 5.5 | 8 | 3.5 | 6.75 | 5.5 | (double sprout) | | FW12 | 6.125 | 6 | 8.5 | 6.25 | 8.5 | 5.25 | 5.75 | 5.125 |  | | FW13 | .5 | 2.75 | 1 | 2.5 | 9.125 | 12 | 7.875 | 8 |  | | FW14 | 3.75 | 7.75 | 10.75 | 5.25 | 9 | 6.875 | 10.125 | 9.875 |  | | FW15 | .625 | 2 | 7.375 | 3.25 | 9.875 | 6.75 |  |  |  | | FW16 | 6.75 | 6.25 | 7 | 4.75 | 7.75 | 6 | 9 | 9.25 |  | | FW17 | 5.75 | 3.5 | 9.125 | 5 | 9 | 7 | 4.875 | 4 |  | | FW18 | 6 | 5 | 8.5 | 6.75 | 8.5 | 6.75 | 4.625 | 7.5 |  | | FW19 | 9.125 | 6.5 | 9 | 5.625 | 5 | 6.5 |  |  |  | | FW20 | 6.25 | 5.5 | 9.25 | 5.25 | 9.375 | 8.75 | 6.625 | 6 | (double sprout) | | FW21 | 7.875 | 6.875 | 6.375 | 6 | 6.5 | 4 | 8.25 | 7.25 |  | | FW22 | 5.375 | 3.375 | 3.25 | 3 | 5 | 4 | 10.25 | 7.5 |  | | FW23 | 4.625 | 4.5 | 8.5 | 4.75 | 5.125 | 4.875 | 4 | 5.125 |  | | FW24 | 11.25 | 5.5 | 9 | 5.5 | 6.875 | 4.25 | 6.5 | 3.375 |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  | Height 5 | Root 5 | Height 6 | Root 6 | Height 7 | Root 7 | | FW1 | 8.875 | 7.75 | 9.375 | 10.25 |  |  | | FW2 | 9.875 | 8.5 | 8.875 | 8 |  |  | | FW3 | 5.125 | 3 |  |  |  |  | | FW4 | 6.625 | 6.5 | 5.875 | 6.875 | 6.625 | 4.375 | | FW5 | 8.25 | 5 |  |  |  |  | | FW6 | 6.5 | 7 |  |  |  |  | | FW7 |  |  |  |  |  |  | | FW8 | 4 | 7.25 | 8.5 | 10.5 |  |  | | FW9 | 6.375 | 3.5 |  |  |  |  | | FW10 | 8.5 | 4.5 |  |  |  |  | | FW11 |  |  |  |  |  |  | | FW12 | 5.25 | 4.5 | 1.75 | 2.875 |  |  | | FW13 | 6.375 | 4.625 |  |  |  |  | | FW14 | 6.875 | 6.5 |  |  |  |  | | FW15 |  |  |  |  |  |  | | FW16 | 10.375 | 7 |  |  |  |  | | FW17 | .875 | 3.625 | 5.75 | 4.5 |  |  | | FW18 | .625 | 2.75 |  |  |  |  | | FW19 |  |  |  |  |  |  | | FW20 |  |  |  |  |  |  | | FW21 | 7.125 | 5.25 | 7.875 | 6.75 |  |  | | FW22 | .75 | 2.375 |  |  |  |  | | FW23 | 6.75 | 5.625 | 2.375 | 3 |  |  | | FW24 | 7.25 | 7.5 |  |  |  |  |   Saran Wrap Light, Oat   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | Height 1 | Root 1 | Height 2 | Root 2 | Height 3 | Root 3 | Height 4 | Root 4 | | SO1 | 7.25 | 4.6875 |  |  |  |  |  |  | | SO2 | 7.3125 | 4.25 | 7.3125 | 4.0625 | 2.4375 | 2.1875 |  |  | | SO5 | 7.4375 | 3.75 | 8.0625 | 3.5 |  |  |  |  | | SO6 | 7.875 | 4.25 | 6.5 | 3.3125 |  |  |  |  | | SO7 | 2.875 | 2.75 | 6 | 2.5 |  |  |  |  | | SO8 | 7.75 | 4.75 |  |  |  |  |  |  | | SO9 | 6.875 | 2.5 | 6.25 | 2.25 | 5.625 | 2.4375 | 1.25 | 1.75 | | SO10 | 7.375 | 1.25 | 0 | 2.5 |  |  |  |  | | SO11 | 6.8125 | 2.375 |  |  |  |  |  |  | | SO13 | 7 | 3 |  |  |  |  |  |  | | SO14 | 6.25 | 2.75 |  |  |  |  |  |  | | SO15 | 2.625 | 1.75 |  |  |  |  |  |  | | SO16 | 6.75 | 3.4375 |  |  |  |  |  |  | | SO17 | 7.4375 | 3.375 | 6.375 | 3.25 | 5.3125 | 2.75 |  |  | | SO18 | 6.375 | 3.75 | 4.5 | 2.75 |  |  |  |  | | SO20 | 6.25 | 3.5 |  |  |  |  |  |  | | SO21 | 7.125 | 3 |  |  |  |  |  |  | | SO23 | 6.25 | 2.875 |  |  |  |  |  |  | | SO24 | 6.75 | 3.375 | 4.5 | 1.75 | 1.25 | .125 |  |  |   Saran Wrap Light, Wheat   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | Height 1 | Root 1 | Height 2 | Root 2 | Height 3 | Root 3 | Height 4 | Root 4 |  | | SW1 | 7.625 | 5 | 10.875 | 7.5 | 9.375 | 8.5 | 5.75 | 4.25 |  | | SW2 | 9.25 | 8.25 | 1.125 | 6.25 | 10.5 | 9.125 | 1.75 | 8.625 |  | | SW3 | 7 | 6 | 7.125 | 6.75 | 1.8125 | 2.125 | 8.5 | 8.3125 |  | | SW4 | 1.25 | 6.375 | 1.875 | 3.125 | 6.5 | 2.375 | 7.75 | 7.75 | (shriveled) | | SW5 | 6.125 | 8.75 | 5.875 | 6 | 1.125 | 5.125 | 7.625 | 8.75 |  | | SW6 | 6.75 | 8.75 | 7.25 | 4.5 | 6.875 | 6.5 | 8 | 8 |  | | SW7 | 6.625 | 6.875 | .1875 | 4.5 | 6.625 | 3.25 | 6.5 | 6.75 |  | | SW8 | 7.75 | 3.5 | .75 | 2.75 | 9.125 | 5.625 | 6.5 | 4 |  | | SW9 | 9.25 | 5.75 | 2.75 | 9 | 6.5 | 6 | 3.5 | 5.625 |  | | SW10 | 4.375 | 4.375 | 8 | 7.25 | 7.125 | 7 | 5.875 | 8.0625 | (shriveled) | | SW11 | 6.25 | 5 | 2.5 | 4.25 | 8.625 | 5.75 | .75 | 2.625 | (double root) | | SW12 | 6.75 | 5.5 | 6.5 | 5.75 | 5.625 | 4.25 | 7.125 | 6.125 |  | | SW13 | 3.375 | 5 | 9 | 4.5 | 6.25 | 4.625 | .875 | 2 |  | | SW14 | 7.875 | 4.875 | 4.75 | 5.75 | 10.125 | 8.125 | 6.875 | 6.125 |  | | SW15 | 7.25 | 5.5 | 6.875 | 5.5 | 7.875 | 8.75 | 7.5 | 5.5 |  | | SW16 | 5.375 | 5.5 | 9.5 | 5.25 | 8.125 | 8.25 | 8.75 | 5.875 |  | | SW17 | 6.5 | 6.75 | 9.75 | 6.125 | 6.25 | 5.5 | 7.1875 | 5 |  | | SW18 | 7 | 5.5 | 6.125 | 5 | 9.125 | 9 | 4.75 | 6 |  | | SW19 | 6.25 | 5.5 | 1.25 | 4 | 9.5 | 9.875 | 7.5 | 4.5 |  | | SW20 | 7.875 | 3.125 | 6.5 | 3.75 | 7.875 | 6 | 6.25 | 4 | (shriveled) | | SW21 | 7.125 | 7 | 8.875 | 9 | 6.125 | 4.75 | 6.375 | 7.5 |  | | SW22 | 9.75 | 7.375 | 6.25 | 6.125 | 6.25 | 4.75 | 4.5 | 5 | (shriveled) | | SW23 | 8.75 | 9.5 | 6.5 | 6.5 | 6.5 | 9.5 | 8 | 5 | (shriveled) | | SW24 | 1.5 | 3.5 | 6.375 | 6.75 | 7.125 | 9.375 | 2.25 | 2.75 | (shriveled) |  |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | Height 5 | Root 5 | Height 6 | Root 6 | | SW1 | 9.8125 | 6.5 | 6.9375 | 3.5 | | SW2 | 8 | 4.375 |  |  | | SW3 | 3.75 | 5.125 | 3.375 | 5.75 | | SW4 | 7 | 2.5 |  |  | | SW5 | 7.5 | 4 | .75 | 2.5 | | SW6 | 7 | 5 | 5.75 | 3.875 | | SW7 | 6 | 5.75 |  |  | | SW8 | 8.375 | 6.75 | 9.125 | 8.875 | | SW9 | 8 | 8.625 |  |  | | SW10 | 9.5 | 9.375 | 6.625 | 8 | | SW11 | 6.25 | 7 |  |  | | SW12 | 6.25 | 4.25 | 8.375 | 3.75 | | SW13 | 6.625 | 7 | 1.5 | 5.25 | | SW14 | 6 | 4.5 | .5 | 1.25 | | SW15 | 8.125 | 5.25 | 7 | 8 | | SW16 | 6.625 | 6.875 | 1.125 | 6.875 | | SW17 | 8.125 | 7.875 | 5.375 | 4.625 | | SW18 | 4.125 | 7.125 | 7.0625 | 6 | | SW19 | 9.5 | 10 |  |  | | SW20 | 8.5 | 4 | 7.125 | 6.25 | | SW21 | 10 | 6 | 3.5 | 5.5 | | SW22 | .125 | 4 | 7.5 | 4.25 | | SW23 | 7.25 | 8.5 | 3.875 | 2.625 | | SW24 | 8 | 3.875 | 8.125 | 6 |   [(Data 1)](http://docs.google.com/data.html) [(Data 2)](http://docs.google.com/data2.html) [(Data 3)](http://docs.google.com/data3.html) [(Data 4)](http://docs.google.com/data4.html) [(Data 6)](http://docs.google.com/data6.html)  [[Home](http://docs.google.com/home.html)][[Introduction](http://docs.google.com/introduction.html)][[Hypothesis](http://docs.google.com/hypothesis.html)][[Procedure](http://docs.google.com/procedure.html)][[Data](http://docs.google.com/data.html)][[Conclusions](http://docs.google.com/conclusions.html)][[Bilio/Links](http://docs.google.com/biblio.html)]  [[2001 Projects](http://docs.google.com/index.html)][[2000 Projects](http://docs.google.com/AP2000/index.html)][[1999 Projects](http://docs.google.com/AP99/index.html)][[1998 Projects](http://docs.google.com/AP98/index.html)] |