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| [**Home**](http://docs.google.com/home.htm)  [**Abstract**](http://docs.google.com/abstract.htm)  [**Introduction**](http://docs.google.com/introduction.htm)  [**Review of Literature**](http://docs.google.com/literature_review.htm)  [**Procedure**](http://docs.google.com/procedure.htm)  [**Data**](http://docs.google.com/data.htm)  [**Conclusion**](http://docs.google.com/conclusion.htm)  [**Cross Sections**](http://docs.google.com/cross_sections.htm)  [**Journal**](http://docs.google.com/journal.htm)  [**References**](http://docs.google.com/references.htm)  [**bonus..**](http://docs.google.com/bonus.htm)**.** |  | **Day 11**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | cell | Control | cell | low | cell | medium | cell | high | | 1 | 2 | 1.30 | 4 | 1.32 | 4 | 1.02, 1.35 | 6 | 1.80 | | 2 | 4 | 1.78 | 4 | - | 1 | 1.45 | 6 | 1.47 | | 3 | 2 | 1.11 | 4 | 1.17 | 4 | 1.83 | 2 | 1.30 | | 4 | 5 | 1.42 | 3 | - | 1 | 1.36, 1.54 | 5 | 1.56 | | 5 | 6 | 1.48 | 4 | 1.90 | 4 | 1.57 | 5 | 1.83 | | 6 | 2 | - | 2 | 1.42 | 6 | 2.01 | 6 | - | | 7 | 5 | 1.13 | 3 | - | 2 | 1.60 | 5 | 1.67 | | 8 | 3 | 1.29 | 3 | 1.12 | 5 | 1.48 | 6 | 1.31 | | 9 | 5 | 1.26 | 5 | 1.12 | 1 | 1.44 | 3 | 1.50 | | 10 | 4 | 1.20 | 6 | 1.32 | 2 | 1.75 | 1 | - | | 11 | 1 | 1.36 | 4 | 1.36 | 3 | 1.54, 1.34 | 5 | 1.43, 1.92 | | 12 | 1 | 1.43,1.42 | 3 | 1.10 | 6 | 1.95 | 5 | 1.74 | | 13 | 2 | 1.40 | 3 | 1.34 | 1 | - | 2 | 2.01 | | 14 | 3 | - | 2 | - | 2 | - | 6 | 1.80 | | 15 | 3 | - | 3 | 1.49 | 2 | 1.44 | 5 | 1.44 | | 16 | 1 | 1.40 | 5 | 1.56, 1.32 | 3 | 1.35 | 1 | 1.47, 1.59 |   \*The cell number is randomly chosen through the use of a TI-83 plus calculator's random number generator. The cells are labeled and then randInt (1,6) selects which cell's plants' stem diameter will be recorded.  \* Measurements are taken in mm with the use of a micrometer.  Control:  Mean – 1.3557 Standard Deviation – 0.1676 Number 14  5 number summary: Min – 1.11 Q1 – 1.26 Med – 1.38 Q3 – 1.42 Max – 1.48  Low:  Mean – 1.3492 Standard Deviation – 0.2188 Number – 13  5 Number summary: Min – 1.1 Q1 – 1.145 Med – 1.32 Q3 – 1.455 Max – 1.9  Medium:  Mean – 1.5306 Standard Deviation – 0.2458 Number – 17  5 number summary: Min – 1.02 Q1 – 1.355 Med – 1.48 Q3 - 1.675 Max – 2.01  High:  Mean – 1.615 standard Deviation – 0.2158 Number – 16  5 number summary: Min – 1.3 Q1 – 1.455 Med – 1.575 Q3 – 1.8 Max – 2.01  Comparison of diameter between Wind Speeds  \* with outliers  Comparison of diameter between Wind Speeds  \* without outliers  Chart of probabilities\*   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Y X | Control | Low | Medium | High | | Control | N / A | 0.3548 | 0.00278 | 0.000055 | | Low | 0.6452 | N / A | 0.0211 | 0.0015 | | Medium | 0.9972 | 0.9789 | N / A | 0.151 | | High | 0.9999 | 0.9985 | 0.849 | N / A |   \*probability that X is greater than Y by chance alone  significant probability levels are highlighted in green  Calculations use the statistics formula for calculating using 2-sample T test. Table and formulas can be found in Appendix. No outliers were included in the tests.  T-Test  For checks, refer to previous t-tests  Significance level – 5%   |  |  |  |  | | --- | --- | --- | --- | |  | T value | Probability | Degree of Freedom | | Low > Control | 0.3782 | 0.3548 | 18.5757 | | Medium> Control | 3.0418 | 0.00278 | 24.3239 | | High > Control | 4.6104 | 0.000055 | 24.1628 | | Control > Low | -0.3782 | 0.6452 | 18.5757 | | Medium > Low | 2.1316 | 0.0211 | 27.2808 | | High > Low | 3.2729 | 0.0015 | 25.6445 | | Control > medium | -3.0418 | 0.9972 | 24.3239 | | Low > Medium | -2.1316 | 0.9789 | 27.2808 | | High > medium | 1.0498 | 0.151 | 30.8593 | | Control > High | -4.6104 | 0.9999 | 24.1628 | | Low > High | -3.2729 | 0.9985 | 25.6445 | | Medium > High | -1.0498 | 0.849 | 30.8593 |   \* Probability represents the probability that the event occurred by chance alone.  \* Corresponding probability for T value can be found in Table C in Appendix.  \* outliers are not included in T calculations  [Day 9](http://docs.google.com/diameter9.htm)   [Day 10](http://docs.google.com/diameter10.htm)    [Day 11](http://docs.google.com/diameter11.htm) |