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| **STATISTCAL ANALYSIS**  From our data, we conducted a one-way analysis of variance (ANOVA) test that compares the means of several populations. The ANOVA F test tests overall Ho that all the populations have the same mean. If the F test shows significant differences, the data will show that the different concentrations of sulfur will make a difference on the zone of inhibition.  Assumptions:  1. We conducted an independent SRS (Simple Random Sample) from each population  2. Each population has a normal distribution  3. All populations have the same standard deviation  Hypothesis:  Ho: The sample means of each population are equal  Ha: Not all of the populations� means are equal  The mean squares that make up F: (the equation)  2 2  MSG= n1(x1-x)+n2(x2-x) +�.  I-1  &  2 2  MSE= (n1-1)s1+(n2-1)s1+��  N-1  For the sake of simplification, we were able to use a calculator program that did this kind of math for us. We used a TI-83 statistic math program that preformed the ANOVA test for us. For more details on how to do this test by hand please consult:  Moore, David S. The Basic Practice of Statistics. W.H. Freeman and  Company, New York. 1995  Here are our results from the ANOVA test:  Testing all levels of Sulfur with combined grasses  F=1.3559 P=.2738  Based on the p-value of .2738, we failed to reject the Ho at the 5% level. There is not enough convincing information so the sample means of each population aren�t statistically significant.  Testing Pacific Bentgrass at each level  F=1.34 P=,3202  Based on the p-values of .3202, we fail to reject the null hypothesis once again at the 5% level  Testing Creeping Bentgrass at each concentration level  F= 2.83 P=.083  Even though this p-value is close to rejecting the Ho and therefore showing significance, we still fail to reject the null hypothesis. There is still no strong data to prove that our data collection showed a difference of sulfur concentration  Testing Spike Bentgrass at each concentration level  F=2.2 P=.142  Once again there is no significance between the different concentrations of sulfur at the p-value of .142 at the 5% significance level.  Testing the soil at each level  F=1.867 P=.193  There isn�t enough evidence to reject the Ho. The means of each population at different concentrations of sulfur are the same. There is no significance of variance.  ([Data](http://docs.google.com/data.html))([Graphs](http://docs.google.com/graphs.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)] |