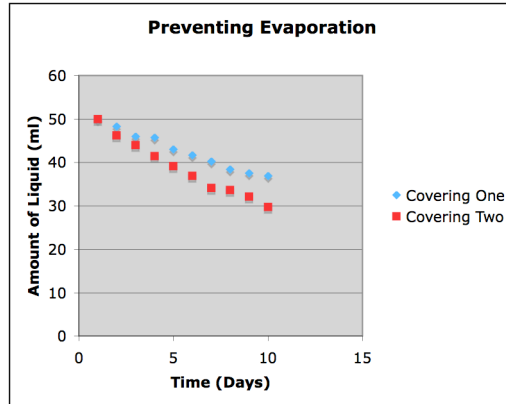


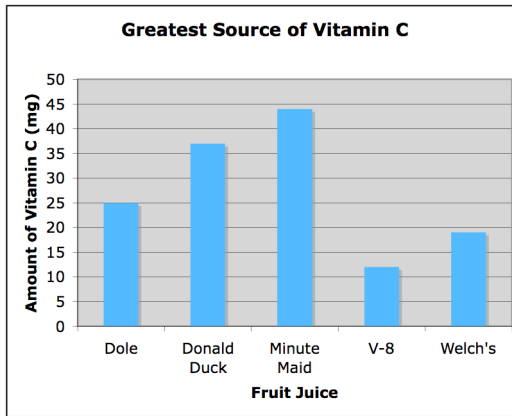
# Graphing Your Science Fair Data

## Types of Graphs

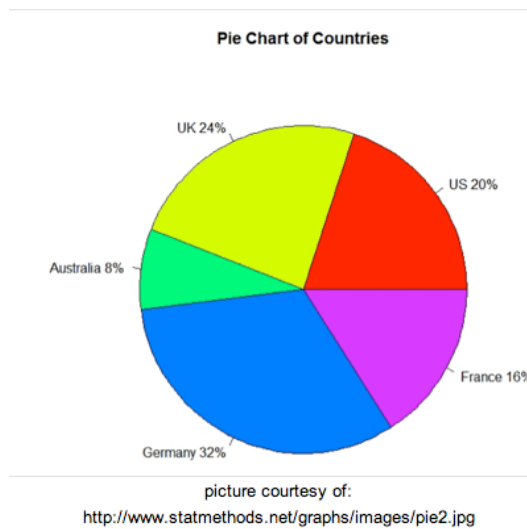
- I. Research Line (x-y scatter) – These graphs show trends over a period of time, help predict what will happen if situations were to continue



- II. Histogram (bar) – These graphs are used when counting items in categories



- III. Pie Graph – These graphs are used to show a comparison of items that have been counted. (Percentage of results)



## What to Graph

- I. Only Graph the Average of all of your trials
- II. If you can, include your multiple variables on the same graph so that you can see how each variable affected your results.

## Graphing on Excel

1. Type your data in columns (x-axis data in the A column, y-axis data in the B column)

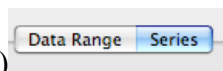
2. Highlight your data and click on the graph icon in the tool bar



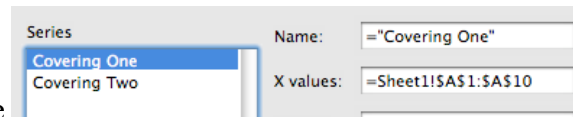
3. Choose the type of graph you need (column, xy scatter, or pie)

4. Click **Next**

5. Click on Series (across the top)



6. Name each series to match the variable



7. Click **Next**

8. Title Your Graph to explain the relationship (DON'T USE VS)

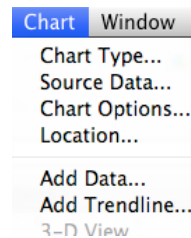
9. Label your x-axis and y-axis – be sure to include units

10. Include a legend that shows the different variables (if necessary)

11. Click **Finish**

\*\*On an XY Scatter – you need to add a line of best fit. To do this:

- 1) Click on the graph, itself
- 2) Click on Chart → Add trend-line
- 3) Click OK



## References for Additional Help:

[http://en.wikipedia.org/wiki/Line\\_chart](http://en.wikipedia.org/wiki/Line_chart)

<http://en.wikipedia.org/wiki/Histogram>

[http://en.wikipedia.org/wiki/Pie\\_chart](http://en.wikipedia.org/wiki/Pie_chart)