Memorandum

Date: November 3, 2008
To: Dr. Reese
From: Mike Schierbeek
Subject: Graphing and Charting Assignment

This assignment is meant to demonstrate different types of graphs and the correct use for each. These graphs were all made through the use of Microsoft Excel. I learned the correct graph to choose depending on the type of data. I also learned how to use Excel to make graphs from the data I inserted.

1.

![Graph of exchange rates](image)

Figure 1. The exchange rate from American dollars to New Zealand and Australian dollars. This graph shows the exchange rate from November 1, 2008 to November 2, 2009.

The exchange rate from U.S. dollars to Australian and New Zealand dollars has fluctuated greatly over the past year. According to Figure 1, February to March of 2009 was the best time to exchange American dollars to Australian or New Zealand dollars. I chose a line graph for this application because it is used to show trends.

As shown in figure 2, the number of results for the search of nonpoint source pollution varies on different web search engines. Placing quotes around the search also makes a difference only on Google and Yahoo search engines. It also shows that the results for Google Scholar are very limited, but this is because they are all scholarly articles. I chose this style of graph because this is nominal data.


3. The gender of TSM/ACR 251 is greatly skewed toward males as figure 3 shows. I collected this November 3, 2009, and it is representative of most days in the classroom. This graph is perfect for this application because it shows how much of the whole population each part is.

4. Figure 3. **The Ratio of Males to Females.** This graph shows how the number of males compares to females in TSM/ACR 251.

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4. Figure 4. **The average cost of precision agriculture applications.** This graph shows the average cost per acre of using precision agriculture technology according to *Precision Agriculture in the 21st Century.*
The cost per acre of precision agriculture is a very important aspect to knowing if it will be profitable for the farm operation. Figure 4 shows the cost for five different precision agriculture applications. I chose this style graph because this too is ordinal data.


By completing this assignment I learned many things about making graphs and using them in media. It helps greatly to clean your data and organize it in Excel before making the graphs. I also learned how to reference the tables in my document and that you shouldn’t put titles in the graph, but in a description below it. Overall this assignment improved my use of graphs in documents.