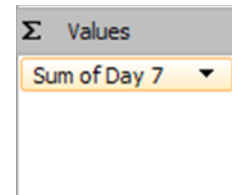


## Lecture 28

### Today: Microsoft Excel Pivot Tables

1. Pivot Tables
  - a. Provide a quick and flexible way to summarize, analyze, consolidate, filter, and report on large quantities of raw data.
  - b. They are called pivot tables because you can change their layout by rearranging, or pivoting, the row and column headings very quickly and easily.
2. Creating a Pivot Table
  - a. Open T:\Teach\Classes\FOR112\Eric\_PivotTable\_Sample.xls
  - b. Be sure each data column (field) has a column header/name!
  - c. Select a cell in the data range (Excel will search around the selected cell for all the data)
  - d. On the Insert tab, click **Pivot Table**
  - e. Confirm that the data selected by Excel is what you want to use
3. How do you want the data reported?
  - a. By what field. Determine that field and drag it to the “Row Labels” area in the Pivot Table Field List pane.
  - b. The field you choose and drag to the row area will generate a row for every unique value found in that field.
4. What do you want to know for each row value?
  - a. Drag the field that you want to summarize to the “Values” area in the Field List pane.
  - b. Next, you’ll choose a summary statistic for that field by clicking the dropdown for the field in the Values section (see picture at right).
  - c. Click Value Field Settings
  - d. Then, choose the way you want to summarize the data (we want Average in our case)
5. For each treatment, we’re calculating the average reading each of the three days
6. Drag the data block to change the table configuration
  - a. When you click and drag with the mouse, notice how the bright blue area moves in the icon next to your mouse pointer.
7. Try dragging the Replication to the Page Field or Report Filter
8. Another Example...
  - a. Open T:\Teach\Classes\FOR112\TRF\_analysis\_database.xls
  - b. Go to the Classroom Data worksheet, create a Pivot Table that can answer the question, “How many students use each of the rooms?”
    - i. Try putting the Term field in the Page area.
  - c. Go to the Majors worksheet, create a Pivot Table that can determine the breakdown of majors for College of Forestry students.
9. The Lecture Notes continue on the next page.



#### 10. Grouping data in a Pivot Table

- a. Grouping is useful when the reported pivot table data is too detailed for what you need.
- b. Grouping is a great way to produce a summary in histogram format.
- c. Use the Group section on the Pivot Table Tools Ribbon. Or, right-click on the data label you wish to group. Choose Group and select the grouping values.

#### 11. Another Grouping Example

- a. Open T:\Teach\Classes\FOR112\basal\_age.xls
- b. Show a count of trees that is grouped by age class (5-year group intervals)
- c. Make a chart from that pivot table data

#### 12. Yet another Grouping example with a chart

- a. Open T:\Teach\Classes\FOR112\plot-sample.xls
- b. A scientist needs a histogram by Dbh class (grouped by 2)

#### 13. Refreshing a Pivot Table

- a. Pivot tables do not automatically recalculate when the source data changes. To refresh a pivot table, select any cell inside the table, then choose Refresh from the Pivot Table Tools | Options ribbon.

#### 14. Pivot Table Sorting

- a. By default data is sorted in ascending order within a data label. Sort order can be changed by right-clicking on a data label and choosing *Sort*, or clicking on the field and then using the Sort options in the Pivot Table Tools ribbon.