

### Practicals 3: Graph plotting workshop I.

0. Check the Inkscape program (download at <https://inkscape.org/> and possibly install at your personal computers later).
1. Import data describing lettuce varieties (lettuce.xlsx) to R
2. Create histograms of harvest days for both lettuce colors – combine them into a single two-panel plot, remove the histogram titles
3. Fix the ranges of y-axes to the same values.
4. Try direct exporting to PowerPoint. Save the result in pdf or svg format.
5. Reset the graphical parameters to single panel.
6. Create scatterplot of harvest mass ~ harvest days
7. Change the colors of the points to illustrate the leaf color of the variety
8. Plot a faceted scatterplot with panels (facets) defined by the leaf color variety
9. Adjust point size
10. Export the graph to pdf/svg/powerpoint/word.

Independent work: import the people2.xlsx dataset. Draw scatterplots showing the relationships between A. body mass and height and B. body mass and hours spent by exercise. Illustrate the sex and hair color variables by using different point colors and faceting.

At home: try opening the svg files in Inkscape software and exporting the figures to pdf or png.

### Practicals 4: Graph plotting workshop II.

11. Draw a barplot showing the association between lettuce taste classes and leaf color. Draw both stacked and dodged barplot. Try various versions of the barplot and color schemes to code the variable levels.
12. Draw a boxplot of harvest mass ~ leaf color
13. Draw dotchart of mean harvest mass classified by leaf color, add error bars indicating standard errors/confidence intervals
14. Generate new data frame by:  

```
big.data<-data.frame(y=rlnorm(30000, 4, 0.5)+sample(c(1,50, 8, 100, 9, 11, 20, 40, 20), 30000, replace=T), fact=c(rep("a", 12000), rep("b", 18000)))
```
15. Draw a boxplot of y ~ fact
16. Log scale the y-axis of the boxplot
17. Draw a beanplot of y ~ fact; examine scaling of the y-axis and then try both linear and log-scaled axis scaling