

Graph plotting workshop I.

1. Import data describing lettuce varieties (lettuce.xlsx) to R
2. Create histograms of harvest days for both lettuce colours – combine them into a single two-panel plot, remove the histogram titles
3. Adjust margins of the plots to improve the fill of the graphical layout and fix the ranges of y-axes to the same values. Save the result in pdf or svg format.
4. Create scatterplot of harvest mass ~ harvest days
5. Change the point symbols to filled circles, change the colors of the points to illustrate the leaf colour of the variety
6. Add color-key legend to the plot
7. Adjust point size
8. Change the orientation of y-axis values, adjust size of the axis titles and axis values
9. Create a scatterplot of dependence of seed production on harvest mass with log-scaled y- and both axes.
10. Add text "Lettuce varieties" somewhere inside the plot region and onto the plot margins

Graph plotting workshop II.

11. Create boxplot of harvest mass ~ leaf color
12. Create barplot of mean harvest mass classified by leaf color, add error bars indicating standard errors
13. Create dotchart of mean harvest mass classified by leaf color, add error bars indicating standard errors

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. Create a boxplot of $y \sim \text{fact}$
16. Create a beanplot of $y \sim \text{fact}$

Homework (to be completed after the second graph plotting workshop): Create a graphically nice plot with nice axis labels and minimum two panels – embed in into a word document with the code used to generate the figure pastet below. Convert the word file to pdf named *surname.pdf* and upload to Homework Vaults in IS. You can use your own real data or generate some imaginary data for this task.