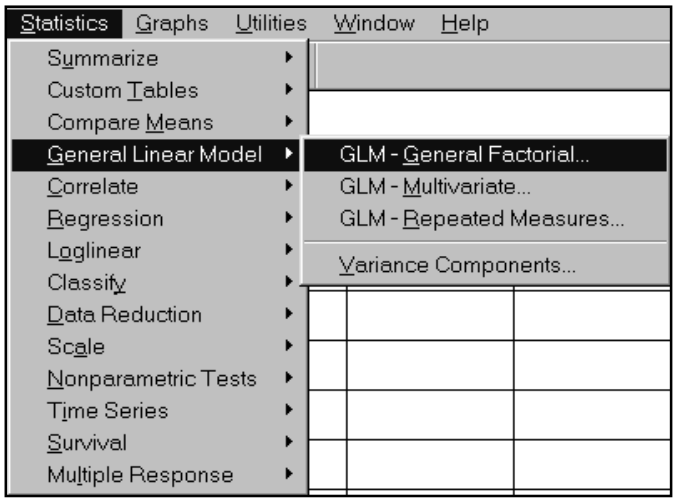
PLANT-GROWTH EXPERIMENT

12. General Factorial Procedure in SPSS

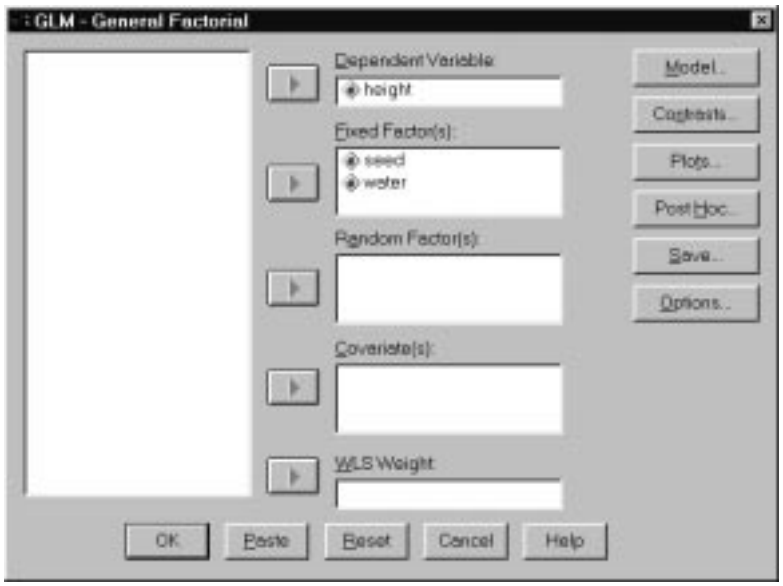
The GLM General Factorial procedure available in SPSS 8.0 provides regression analysis and analysis of variance for one dependent variable by one or more factors or variables. The plant-growth experiment is an example of a factorial experiment because all possible combinations of the treatment levels are run in a replication.

The data file used for this study is available in the SPSS file *plant1.sav* located on the FTP server in the Stat337 directory. In the data file, variables include seed, water, and height. The two-predictor variables in this study, seed and water, are categorical, which means they should be entered as factors in the GLM General Factorial procedure.

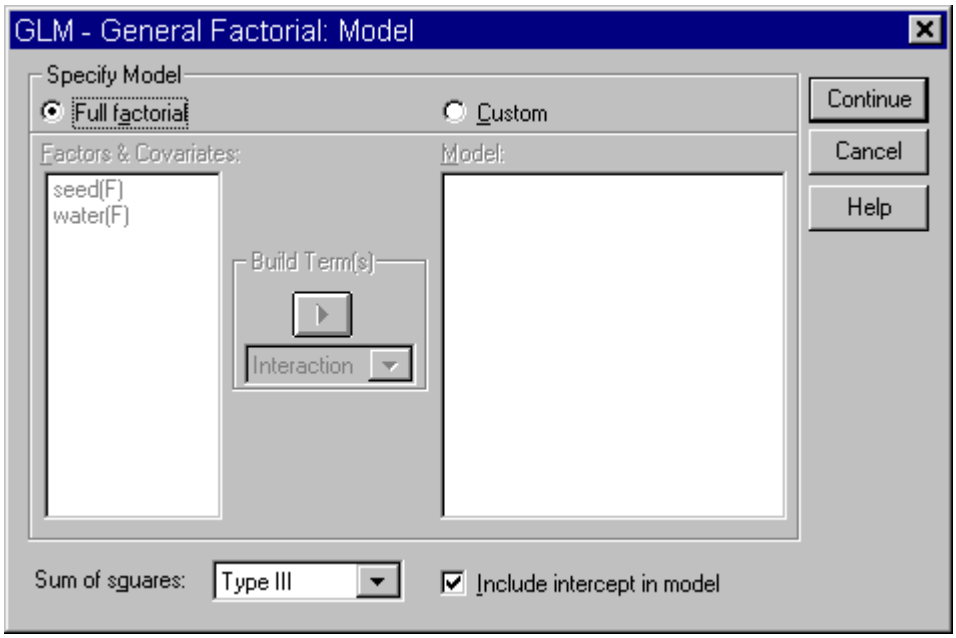
To produce the output for your data, click on *Statistics*, then *General Linear Model*, and on finally on *GLM-General Factorial…*.



Fill out the GLM-General Factorial dialog box as follows:



Then click on the *Model* tab and fill out the dialog box as follows:



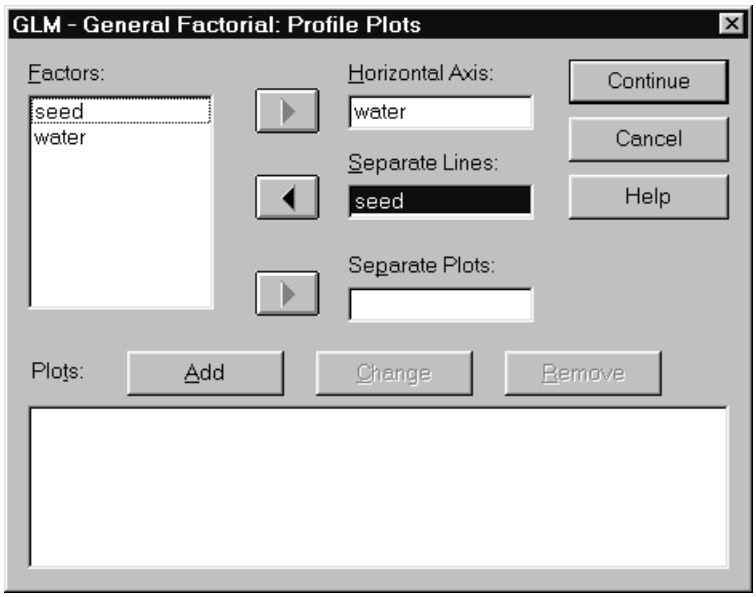
Then click on the *Plots…* and *Options…* tabs and fill out the subsequent dialog boxes as follows:

Plots…

- Horizontal axis: seed
- Separate lines: water (Click Add)

Options…

- Display means for: location * size



Click on OK in the GLM-General Factorial dialog box to obtain the output.