

Applied Genetic Evaluation - Exercise 1

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Problem 1: Model Selection

We assume that we have a dataset for the response variable **carcass weight** (CW) and for some predictor variables

- sex (**sex**)
- slaughterhouse (**slh**)
- herd (**hrd**)
- age at slaughter (**age**)
- day of month when animal was slaughtered (**day**) and
- humidity (**hum**)

Use a fixed linear effects model and determine which of the predictor variables are important for the response.

The data is available from `data_bp_w09.csv`.

Hint

- Use the function `lm` in R to fit the fixed linear effects model
- Use Mallows C_p statistic and the adjusted coefficient of determination R_{adj}^2 as model selection criteria
- Use the backward model selection approach