

Recap 2023-11-03

□ Goal: Prediction of breeding values

$$y_{ij} = \mu + \text{herd}_j + e_{ij} \quad \left. \vphantom{y_{ij} = \mu + \text{herd}_j + e_{ij}} \right\} \text{linear fixed effect model}$$

i : Tier

j : Herd

Insert data

$$y_{12,1} = \mu + \text{herd}_1 + e_{12,1}$$
$$\left[\begin{array}{l} 2.61 = \mu + \text{herd}_1 + e_{12,1} \\ i=12 \\ j=1 \end{array} \right]$$

□ Why mixed linear model and not fixed linear model?

$$y_{ij} = \mu + \text{herd}_j + u_i + e_{ij}$$

herd_j : fix

u_i : random

} mixed linear model

if herd_j and u_i both
fix \Rightarrow fixed linear
model