

## Recap: Prediction of Breeding Values

### □ Own performance

Animal	Phenotype Weight	
1	275 kg	
⋮	⋮	
⋮	⋮	
N	312 kg	

- Predicted breeding value  $\hat{u}_i$  for animal  $i$

$$\hat{u}_i = h^2 (y_i - \mu)$$

Annotations:  
-  $h^2$ : heritability  
-  $y_i$ : measurement  
-  $\mu$ : population mean

- Accuracy:

$$r(u_i, y_i) = \frac{\text{cov}(u_i, y_i)}{\sqrt{\text{var}(u_i) \cdot \text{var}(y_i)}} = h$$

Genauigkeit

$$\text{Reliability: } r^2(u_i, y_i) = h^2$$

(Bestimmtheitsmass)