

## Genetic evaluation MEAT

### General

Breeds: Fleckvieh, Brown Swiss, Pinzgauer, Grauvieh, Gelbvieh, Vorderwälder, Fleischrassen  
 since 1995 genetic evaluation meat  
 since 2002 together with Germany, since 2011 genomic evaluation, since 2021 single-step  
 evaluation  
 Implementation: LGL Kornwestheim

### Data

Slaughter data of young bulls (for Grauvieh steers)  
 Pinzgauer, Grauvieh: Slaughter data of fattening calves, auction data of bulls  
 Countries: Austria, Germany, Czech Republic (Fleckvieh), Hungary (Fleckvieh).

### Traits:

Net daily gain (carcass weight/slaughter age), carcass percentage (carcass weight/liveweight),  
 trade class (EUROP meat classification).

### Model

multivariate BLUP animal model (single-step)  
 Software MiX99

### Effects:

- Fattening farm-year
- Slaughterhouse
- Slaughter month
- degree of fatness
- calving number
- birth type
- slaughter age
- genetic effect of the bull

### Genetic parameters

**Slaughter traits bulls** (heritabilities on diagonal, genet. corr. above diagonal):

		Net daily gain	Carcass perc.	Trade class
<b>Fleckvieh</b>	<b>Net daily gain</b>	<b>29%</b>	0.51	0.46
	<b>Carcass perc.</b>		<b>46%</b>	0.59
	<b>Trade class</b>			<b>21%</b>
<b>Brown Swiss</b>	<b>Net daily gain</b>	<b>26%</b>	0.44	0.57
	<b>Carcass perc.</b>		<b>37%</b>	0.43
	<b>Trade class</b>			<b>18%</b>

### Slaughter traits calves:

Heritabilities:

Net daily gain: 25%

Trade class: 24%

## Publication

Breeding values for **net daily gain (NTZ)**, **carcass percentage (AUS)** and **trade class (HKL)** as relative breeding values with mean value 100 and deviation 12

### Meat index FW:

relative breeding value with mean value 100 and deviation 12

Weighting of the traits in the FW (in %):

	Net daily gain	Carcass perc	Trade class	NTZ-calf	HKL-calf
<b>Fleckvieh</b>	22	39	39		
<b>Brown Swiss</b>	60	20	20		
<b>Pinzgauer</b>				50	50
<b>Grauvieh*</b>	25		25	25	25
<b>Gelbvieh</b>	40	30	30		
<b>Vorderwälder</b>	33.3	33.3	33.3		

\* additional muscling score as auxiliary trait

## Relationship between breeding value and phenotype

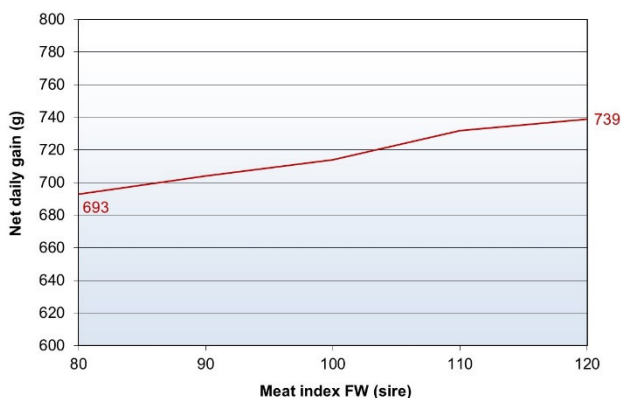


Fig.: Net daily gain of the slaughtered sons (in g) depending on the meat index FW of the sire (Fleckvieh, AT)

## Genetic trends

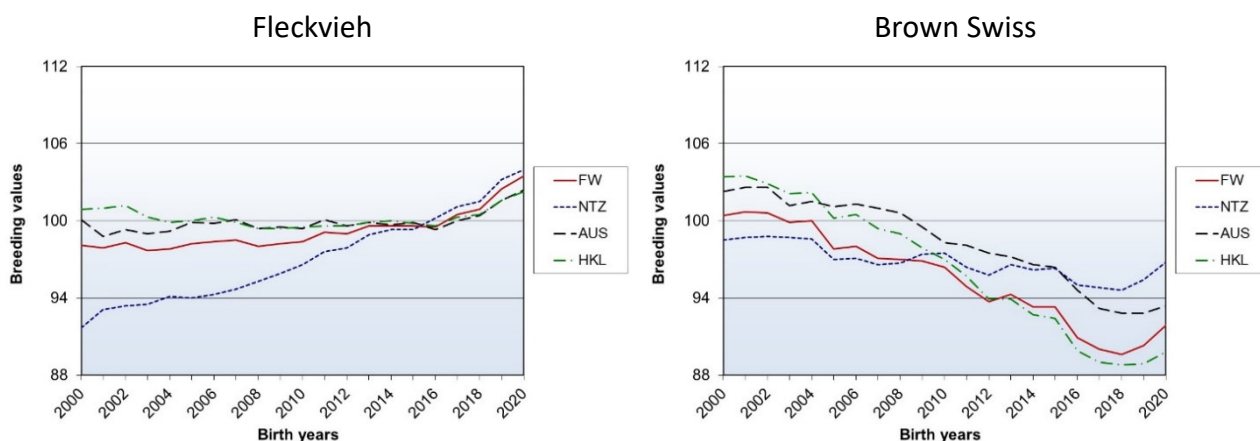


Fig.: Genetic trends for the meat index (FW) and the breeding values for net daily gain (NTZ), carcass percentage (AUS) and trade class (HKL) for the cows (Austria)