# 19. World Simmental Fleckvieh Congress

## Beef performance traits in Fleckvieh Simmental

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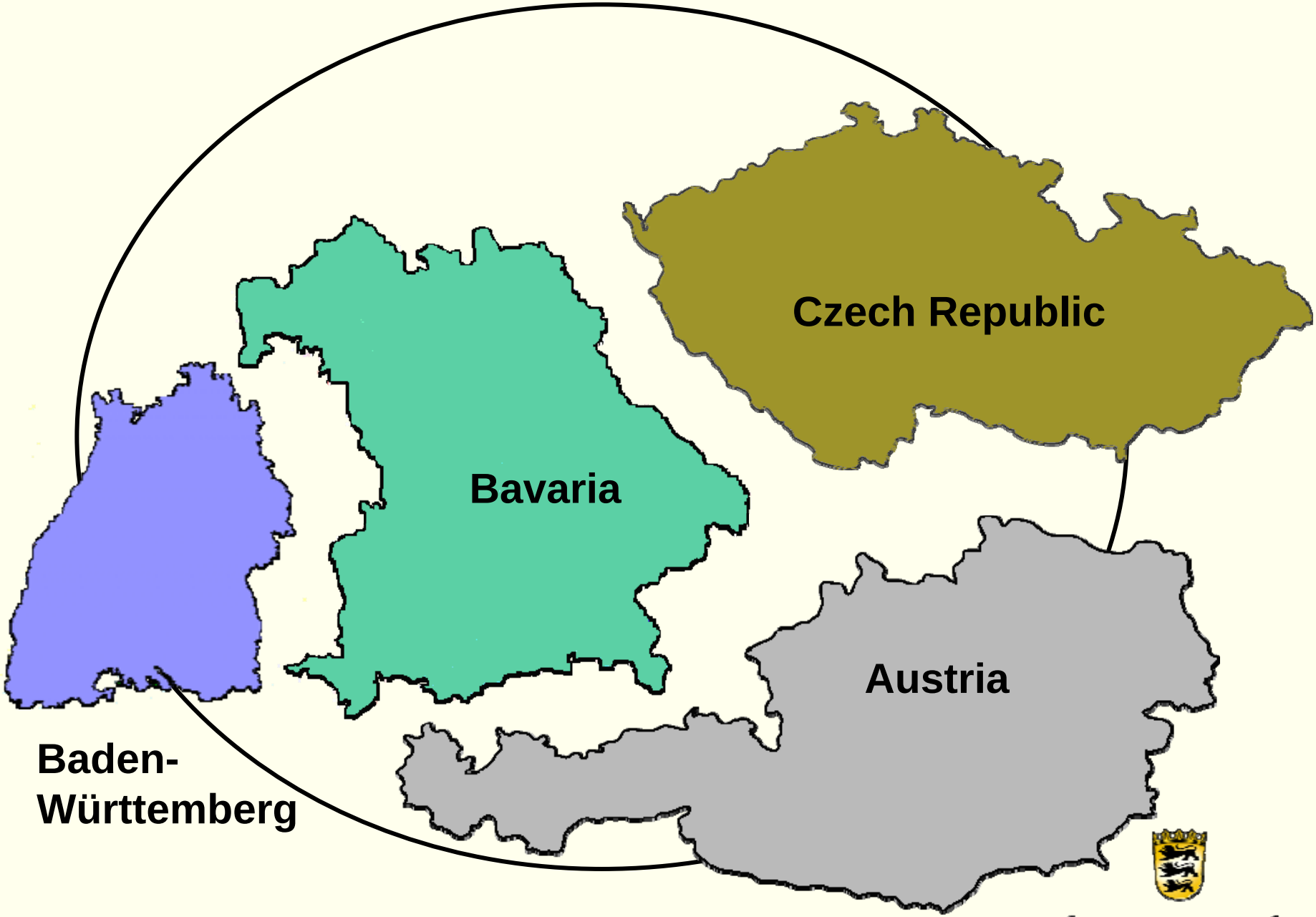
# Beef performance in Fleckvieh Simmental

- Dual purpose population (milk and beef)
- Beef population (cow suckler)

➔ different performance recording schemes

➔ different weight for the beef traits in the total merit index

# Beef evaluation in the dual purpose population

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# Recording methods in the dual purpose population:

- Individual performance recording in test stations (IP-S)
- Individual performance recording in the field (IP-F)
- Progeny testing in test stations (PT-S)
- Progeny testing in the field (PT-F)

# Performance records:

| Recording type \ Country | Austria | Czech Republic | Baden-Württemberg | Bavaria | Total |
|---|---|---|---|---|---|
| IP-S | 3,196 | 3,177 | 11,938 | 4,487 | 22,798 |
| IP-F | 22,417 | 0 | 30,198 | 70,990 | 123,605 |
| PT-S | 0 | 31,311 | 0 | 4,105 | 35,416 |
| PT-F | 846,924 | 207,553 | 699,381 | 3,991,158 | 5,745,016 |
| Total | 872,537 | 242,041 | 741,517 | 4,070,740 | 5,926,835 |

# Traits:

| Recording type | Trait | | Mean | St.dev. |
|---|---|---|---|---|
| IP-S | Test day gain | [g / day] | 1325.82 | 151.28 |
| | Muscling score (1 - 9) | | 5.64 | 1.55 |
| IP-F | Average daily gain | [g / day] | 1313.20 | 141.66 |
| | Muscling score (1 - 9) | | 5.75 | 1.34 |
| PT-S | Net gain | [g / day] | 634.55 | 77.10 |
| | Meat percentage | [%] | 69.12 | 2.12 |
| PT-F | Net gain | [g / day] | 662.36 | 99.37 |
| | Carcass yield | [%] | 57.26 | 2.11 |

**+ EUROP-classification for PT-S and PT-F:**

**U grade: 56%**

**R grade: 38%**

# Target traits:

Natural and relative breeding values for the economical most relevant traits:

- Net gain (NG)
- EUROP grade (EU)
- Carcass yield (CY)

➔ Index FW (Fleischwert = Meat Value) based on the target traits:

FW = 44% NG + 28% EU + 28% CY

FW is weighted with 16% in the Total Merit Index (GZW)

# Genomic breeding value estimation:

Genomic breeding value evaluation is conducted for the three target traits and the “Meat Value”.

Size of the calibration sets:

| | | |
|---|---|---|
| Net gain | (NG): | 7,470 bulls |
| EUROP grade | (EU): | 7,379 bulls |
| Carcass yield | (CY): | 6,218 bulls |

# Recording methods in the beef population:

- Individual performance recording of bulls in test stations
  (IP-S: weight at 200 and 365 days; muscularity grade)
- Individual performance recording of male and female animals in the field
  (IP-F: weight at 200 and 365 days; muscularity grade)

The reproduction performance is additionally measured.

# Traits:

| Trait | | Mean |
|---|---|---|
| Daily gain (200 days) | [g / day] | 1543.00 |
| Daily gain (365 days) | [g / day] | 1434.00 |

+ muscularity grade

# Index:

Index RZF (Relativzuchtwert Fleisch = Relative Breeding Value Beef)
based on the traits:

$$RZF = 40\%\ DG_{mat}(200d) + 40\%\ DG(365d) + 20\%\ MG$$

# Outlook:

Breeding value evaluation for beef is based on:

- Growth traits
- Carcass measurements

Traits describing the beef quality is yet not measured in the routine slaughtering process.

*Thank you for your attention!*

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