Stress Reduction in Beef Cattle by Improving Human-Animal-Relationships

**Background**

Farms keeping suckler cows often face the problem of wild behaviour of their animals. Especially loose-housing and grazing systems with low management input cause frail relationships between humans and animals.

**Hypothesis**

Stress during the animal’s lifetime and before slaughter can be reduced by better human-animal-relationships arising from a positive handling method. Established in a preliminary study (Master Thesis) with handling five weeks before slaughter.

**Material and Methods**

**Experiment 1**

- Investigating whether an early positive handling, based on TTouch© has calming effects on newborn suckler beef calves
- Ear tagging is a painful routine intervention in newborn calves
- Can this situation be ameliorated by a positive handling?

Experiment 1 is conducted on two different farms:
- Farm A = Ear tagging after first handling session
- Farm B = Ear tagging before handling sessions

**Experiment 2**

- Handling (TTEAM©) of 20-month old Limousin beef cattle (♀ & ♂ castrated) at 5 weeks before slaughter
- 5 animals will be handled twice a week, 5 animals act as control animals (no handling)
- Parameters to be investigated are the same as described above

**Experiment 3**

Collect information at one day at the abattoir (around 200 cattle at the age of 10 to 14 months) about:
- Stress indicating behaviour & physiological stress parameters
- Age, breed, gender, transport distance, especially derivation farms
- Behaviour observation while entering stunning box & inside this

**Behaviour tests:**

- **on farm**
  - Test of: avoidance-distance, flight-speed, weighing, open-field, novel-object, & human-approach

- **at abattoir**
  - Behaviour scoring while entering the stunning box and inside the stunning box

**Meat quality:**

- Cooking losses, shear force & meat colour

**Blood samples:**

- Cortisol, glucose & lactate
  - (samples will be taken before slaughter & during exsanguination)

- Blood samples will be taken during exsanguination
- Hair whorl positions at animals’ foreheads will be photographed (correlations between temperament and hair whorl are possible)