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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.

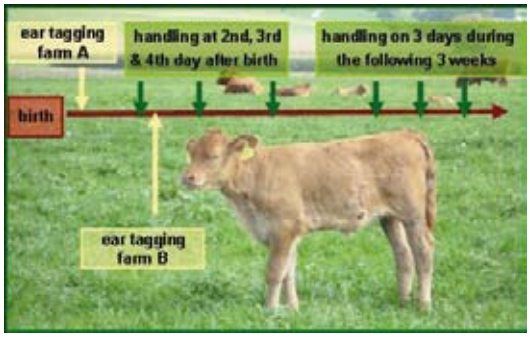
Material and Methods

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 new born calves
- can this situation could 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

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.

TTouch© is a method based on 1 ¼ circular movements of the fingers and hands all over the body of the animal.

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)