Faculty of Agricultural and Nutritional Science

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Tail docking in pigs – Is there any possibility of renunciation?

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Definition

What is tail biting?

Tail biting can be classified into three categories (Taylor et al., 2010)

- **„Two stage“**
  →Low-stimulus environment
- **„Sudden-forceful“**
  →Lack of resources
- **„Obsessive“**
  →Individuals with health problems

Consequences:

- Reduced animal welfare
- Possible spread of infections
  → Economic losses

- Can a … erial for occupa… t or decrea…
- Do the… w material?

Experimental set up

- **Observation period**: September 2013 till January 2014
- **Renunciation of tail docking**
- 720 piglets divided into 3 groups:
  - **Control**
  - **Dried corn silage**
  - **Alfalfa hay**

  →10 batches with 6 litters
- **Offering of raw material** two times per day in piglet bowl or nest
- **Weekly scoring** in farrowing section and rearing area, every third week in fattening unit
- **Video surveillance** of 40% of litters in farrow section and rearing area

  → Analysis by „Instantaneous scan sampling“, coding of behaviour patterns

Scoring

(1) Damage
- No visible damage
- Scratches, light bite marks
- Moderate damage
- Severe damage

(2) Additional observations
- Swelling
- Blood
- Necrosis

(3) Tail length / Loss of tail
- Original
- Loss of tail tip (max. ¼)
- Partial loss (at least ¼)
- Total loss

Bite occurence

Tail losses

Scoring

Original length

Loss of tail tip

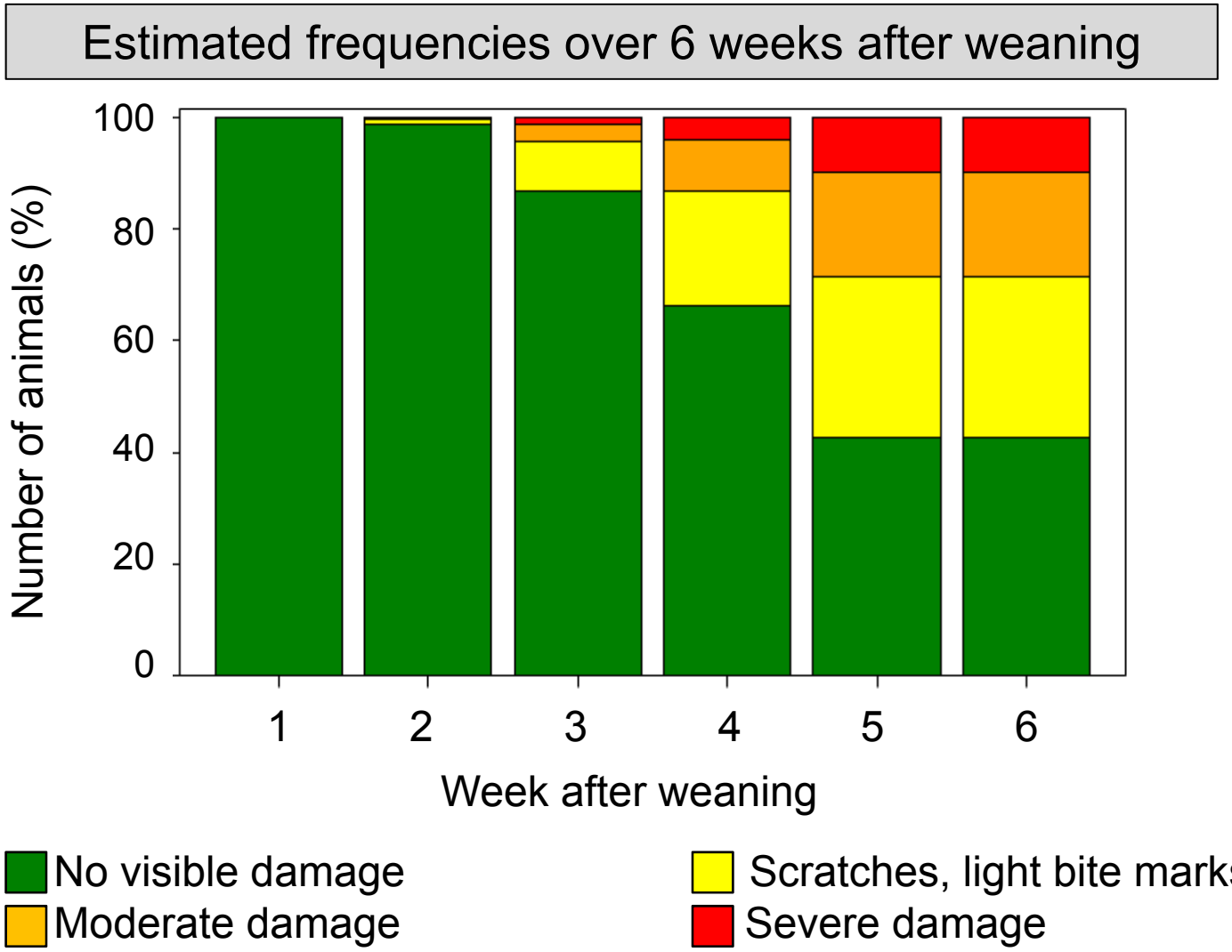
Partial and total losses

Modell

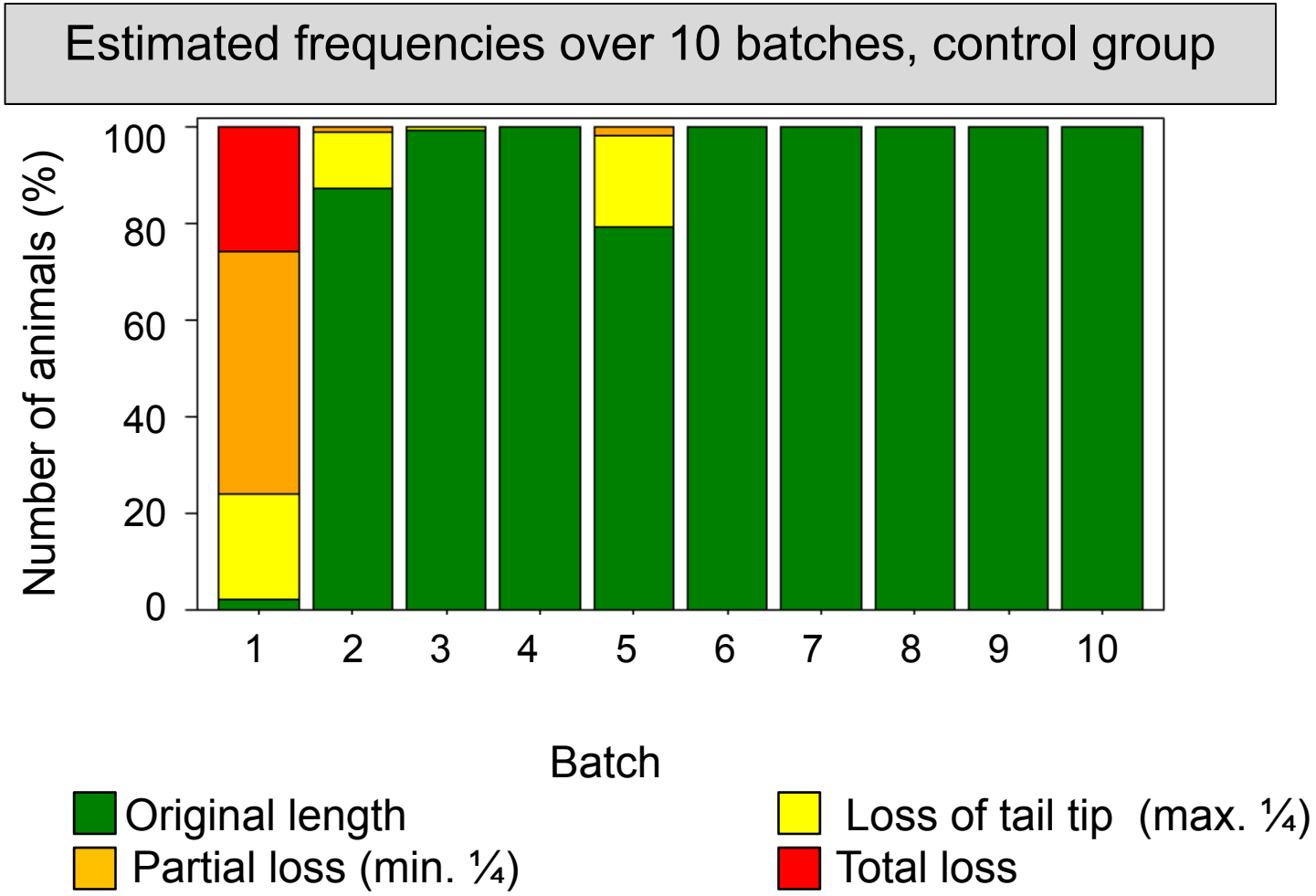
Procedure Glimmix (SAS 9.2®): „Multinomial subject specific model“

- **Fixed effects**:
  - Group (control, dried corn, alfalfa hay)
  - Batch (1-10)
  - Test day (1-13)
  - Age in weeks (1-13)
  - Interaction of group and batch
- **Random effect**:
  - Group

Bite occurrence - Age effect

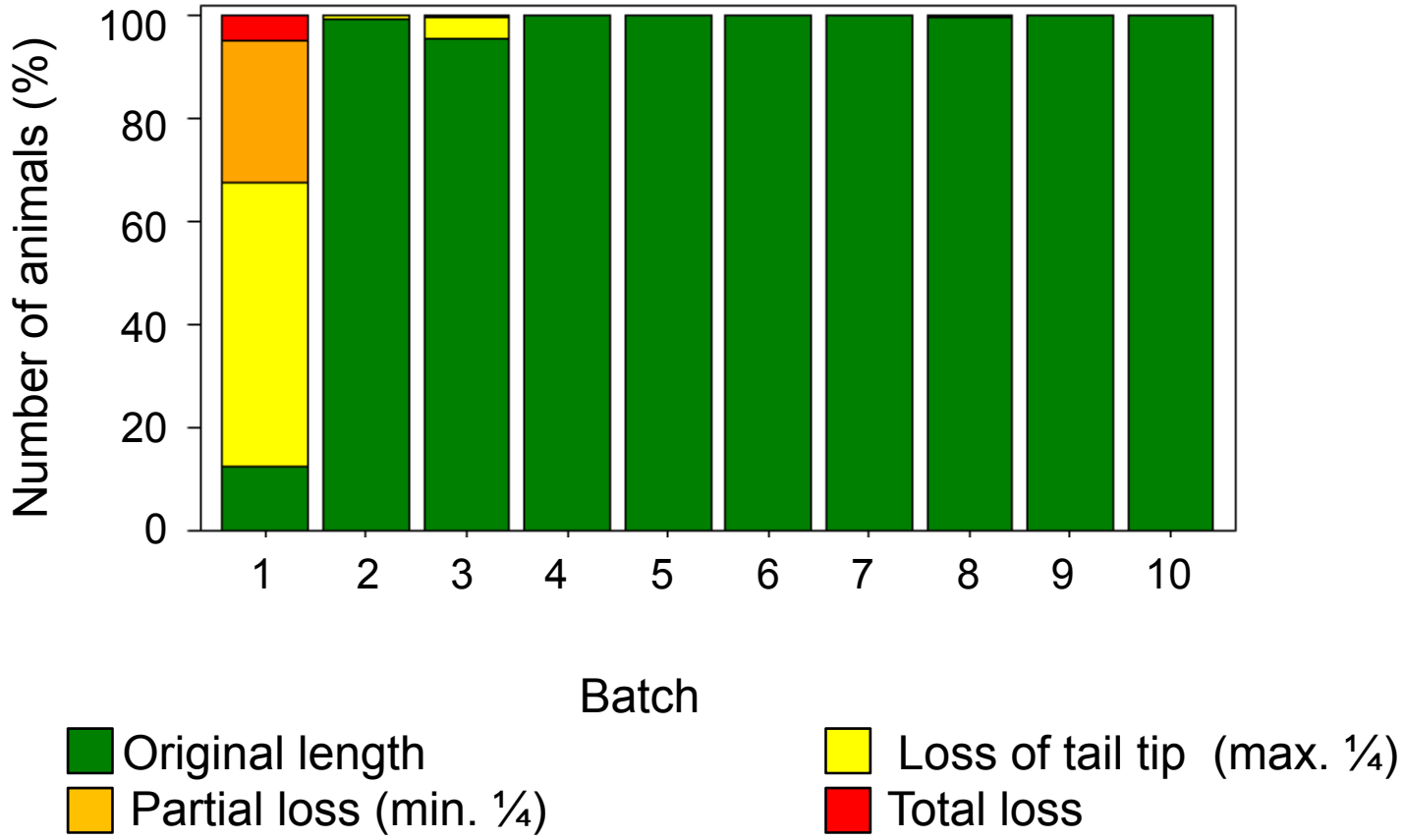


Tail losses – Batch effect



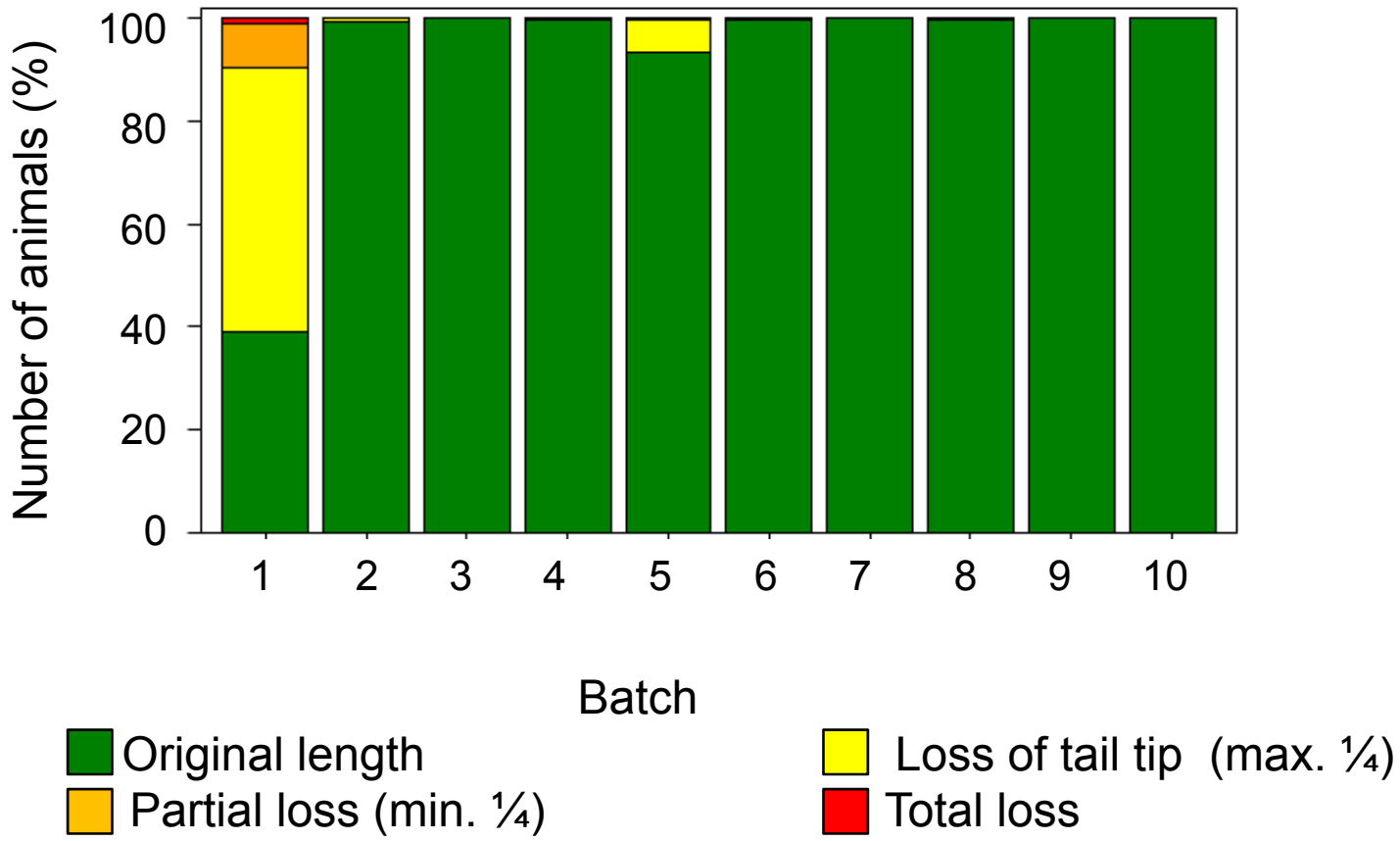
Tail losses – Batch effect

Estimated frequencies over 10 batches, dried corn group



Tail losses – Batch effect

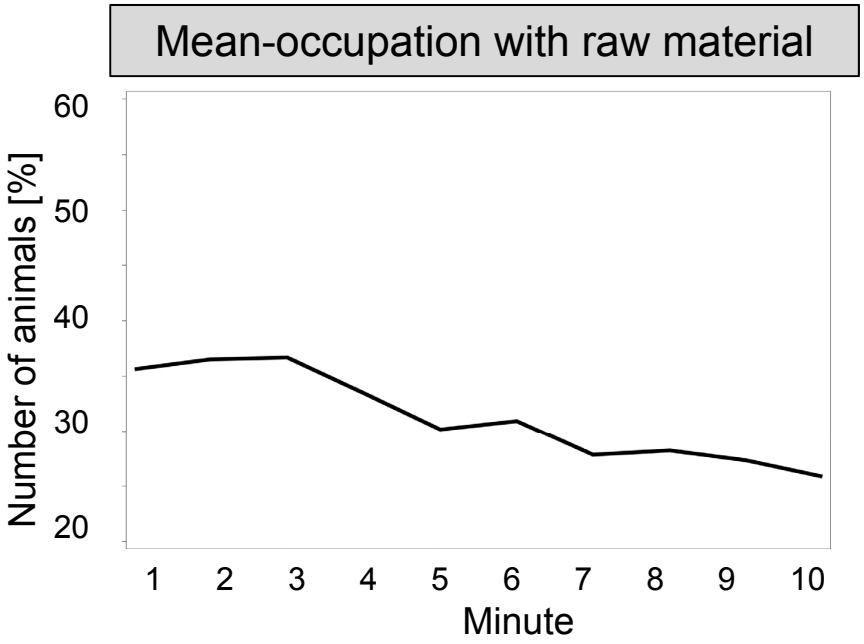
Estimated frequencies over 10 batches, alfalfa hay group

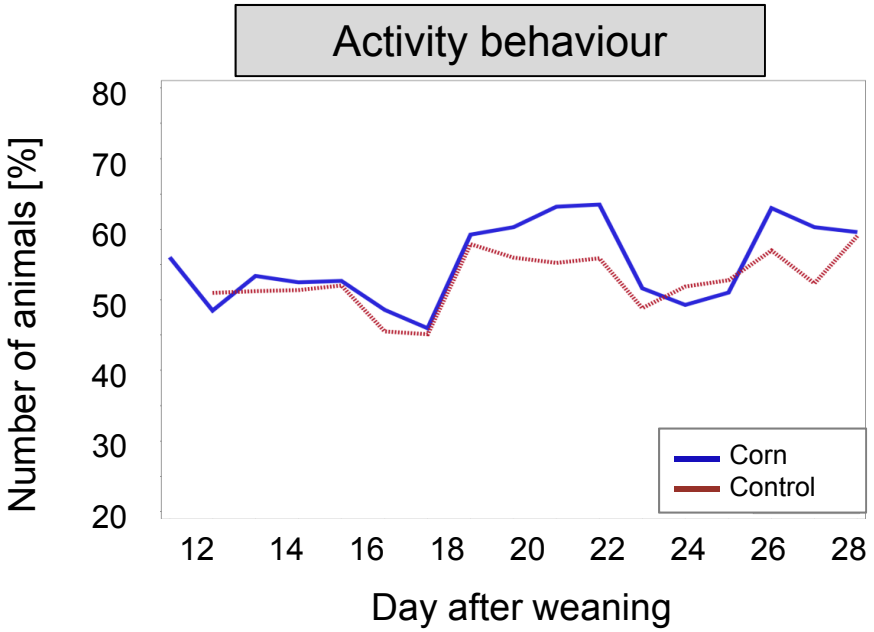


Videoanalysis

„Instantaneous scan sampling“

- Two-phase activity curve in farrow section and rearing area
- On average 31% of the piglets were occupied by offered material
  →Tendency to decrease during 10min observation period
- From farrow section to rearing area the activity increased from 20 to 40%





Conclusion

- Concentration of tail biting in rearing phase
  → Biting occurrence 2-3 weeks after weaning
  → Tail losses 3-4 weeks after weaning

- Offering of raw material as occupation material
  → Tendencies to reduce tail biting
  → Tendencies to delay an outbreak after weaning

- Need of precise animal observation and direct intervention in case of tail biting occurrence
  → More important then the kind of material

- Outlook: Analysis of video recording
  → Activity behaviour in regard of tail biting outbreak

Thank you for your attention!

Any questions?

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