

ELEVATED PLATFORMS FOR BROILERS ON COMMERCIAL FARMS: USAGE AND EFFECTS ON HEALTH AND PERFORMANCE.

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BACKGROUND

- Chicken use elevated structures for resting both during the night and at daytime
 - Broilers are chickens!
- Broilers prefer elevated platforms compared to perches (Norrington et al., 2016; Malchow et al., 2019)



AIM OF THE STUDY

Aim of the study:

- Usage of the elevated platform in an on-farm setting
- Effects on health parameter and performance

ELEVATED PLATFORM



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- Height: 70 cm
- Width: 120 cm
- Length: ca. 90 m
- Perforated plastic floor



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ELEVATED PLATFORM



- Ramps alternating to the right and left of the level (in a distance of 3 m)
- Ramps: 2 m x 38 cm
- Ascent angle 20°

© TiHo und LWK Nds

ELEVATED PLATFORM



- Watering line on the elevated platform
- LED strip on and below the platform
- Lifiable for cleaning and disinfection

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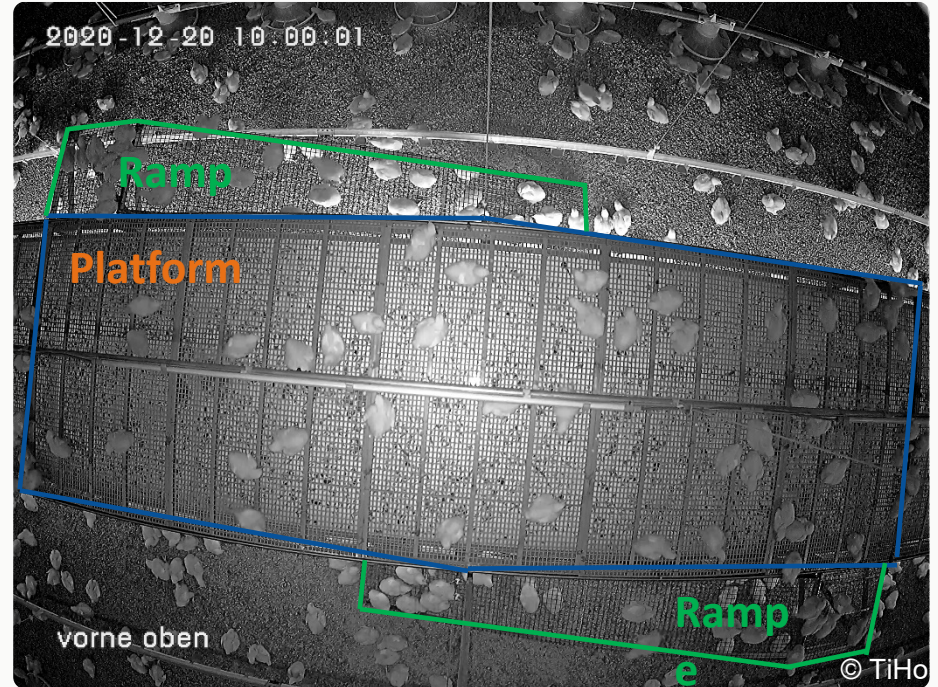
- 3 conventional farms in Lower Saxony, Germany
- Two barns per farm: elevated platform (EP) / control (C)
- 3 fattening periods / farm: approx. 37,000 (farm A), approx. 33,000 (farm B) and approx. 44.000 (farm C)
- Fast-growing broilers (Ross 308, Cobb 500)
- Stocking density 35 kg/m² (barn floor area), additional space approx. 108 m² on the elevated platform
- 42 fattening days, thinning approx. at day 33

METHODS

- 3 video cameras: front, middle, back
- Observation area: level 4.5 m², 2 ramps 0.93 m²
- Each one day per fattening week (week 1-5)
- Recordings for 24 h



- Interval 30 min = 48 scans per day and camera
- Number of animals on platform



METHODS

- 3 farm visits / fattening period / farm (at different ages)
- 50 animals per barn / farm / visit
 - Weight
 - Foot pad dermatitis (FPD)
 - Hock burns (HB)
 - Injuries
 - Plumage pollution (PP)

0						
1	Tiernummer	26	27	28	29	30
2	Körpergewicht [g]					
3	Gefiederverschmutzung Oberseite (0-3)					
4	Hautverletzung dorsal (0-2)					
5	lateral (0-2)					
6	Gefiederverschmutzung Unterseite (0-3)					
7	Kloake kotverklebt (0/1)					
8	Hautverletzung ventral (0-2)					
9	Zehenverletzung (0-2)					
0	Fussballenläsion linker Fuß (0-3)					
1	rechter Fuß (0-3)					
2	Zehenballenveränderung (0/1)					
3	Hock burn links (0-4)					
4	rechts (0-4)					

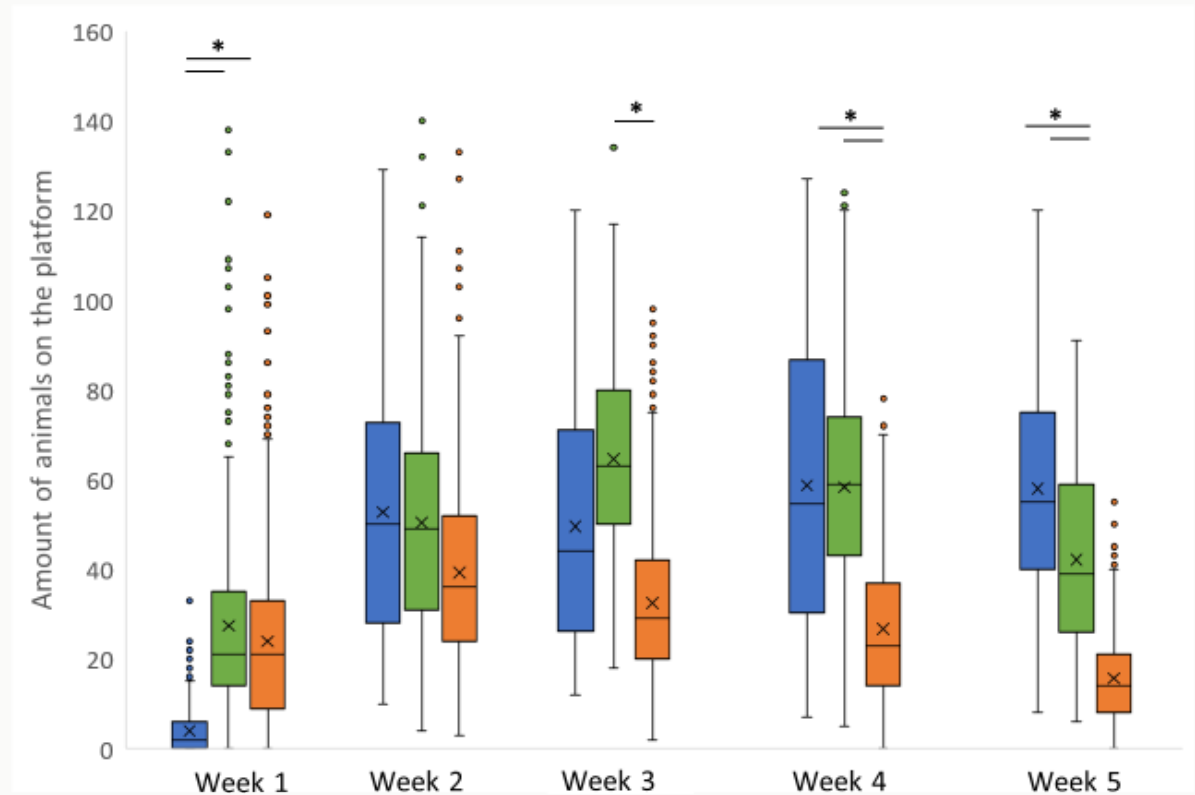
SAS 9.4

- Generalized linear mixed models
 - Proc Glimmix (weight data): fixed effects: fattening week, farm, fattening week*farm, hierarchical structure in the random statement
 - Proc Genmod (for multinomial data): fixed effects: treatment, farm, age, treatment*farm, treatment*age

RESULTS

Usage of the elevated platform:

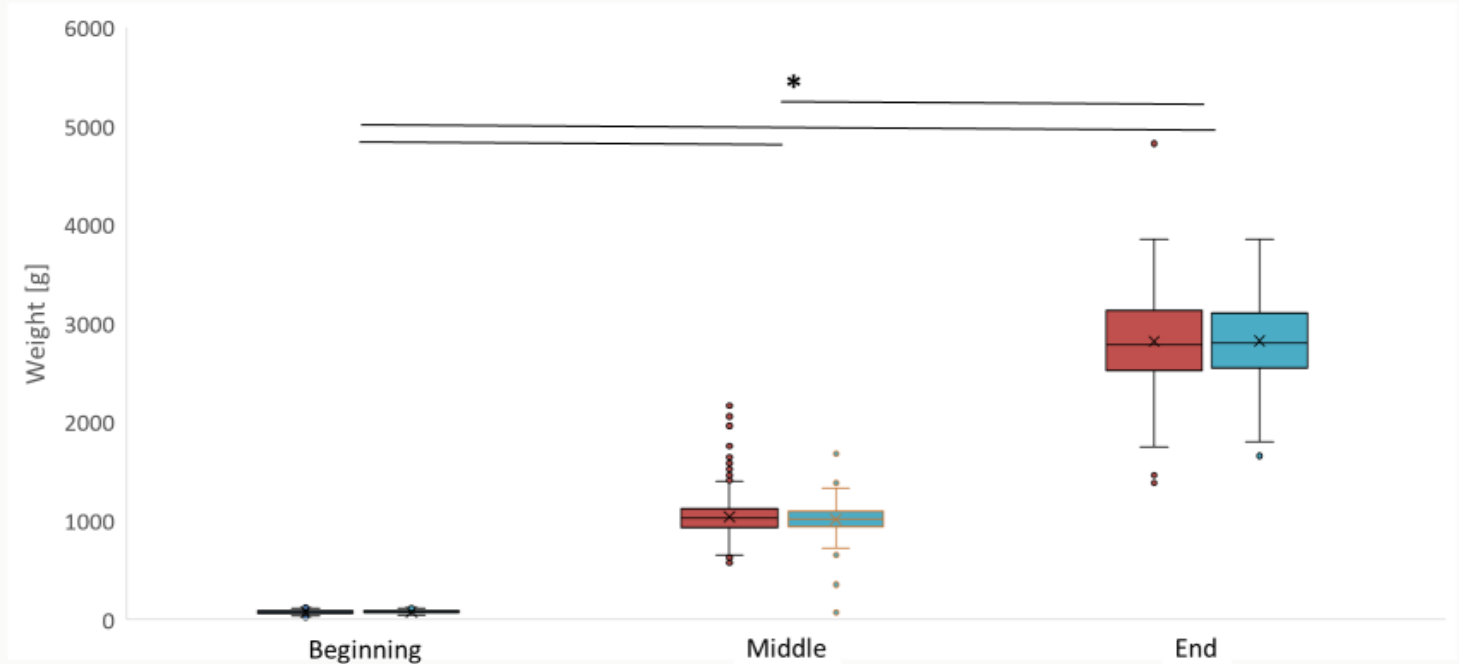
- Effect of farm, week and farm*week



RESULTS

Performance:

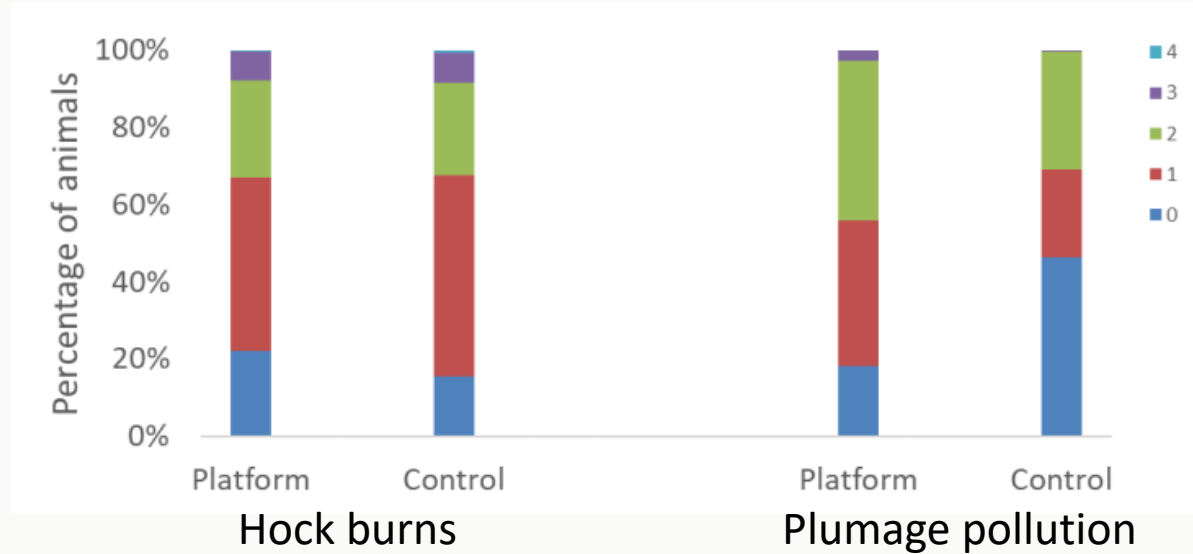
- No effect of treatment



RESULTS

Health:

- Treatment effect: HB, PP
- Effect of Treatment*Farm: FPD, HB, PP, injuries on toes



CONCLUSION

The results of this study indicate the benefits of elevated platforms for broilers' well-being. However, positive effects on health depend on the respective management and need further research.





The study is part of the model and demonstration project Animal Welfare

Questions?

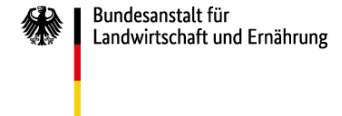


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