

# The SchwIP management tool for tail biting in fattening pigs: a comprehensive approach for a complex problem

Sabine Dippel <sup>1</sup>, Astrid L. vom Brocke <sup>1,2</sup>, Dana P. Madey <sup>1</sup>, Lars Schrader <sup>1</sup>

<sup>1</sup> Institute of Animal Welfare and Animal Husbandry, Friedrich-Loeffler-Institut, Dörnbergstr. 25/27, 29223 Celle, DE, sabine.dippel@fli.bund.de

<sup>2</sup> current address: Landwirtschaftskammer Nordrhein-Westfalen, Versuchs- und Bildungszentrum Haus Düsse, Ostinghausen, 59505 Bad Sassendorf, DE

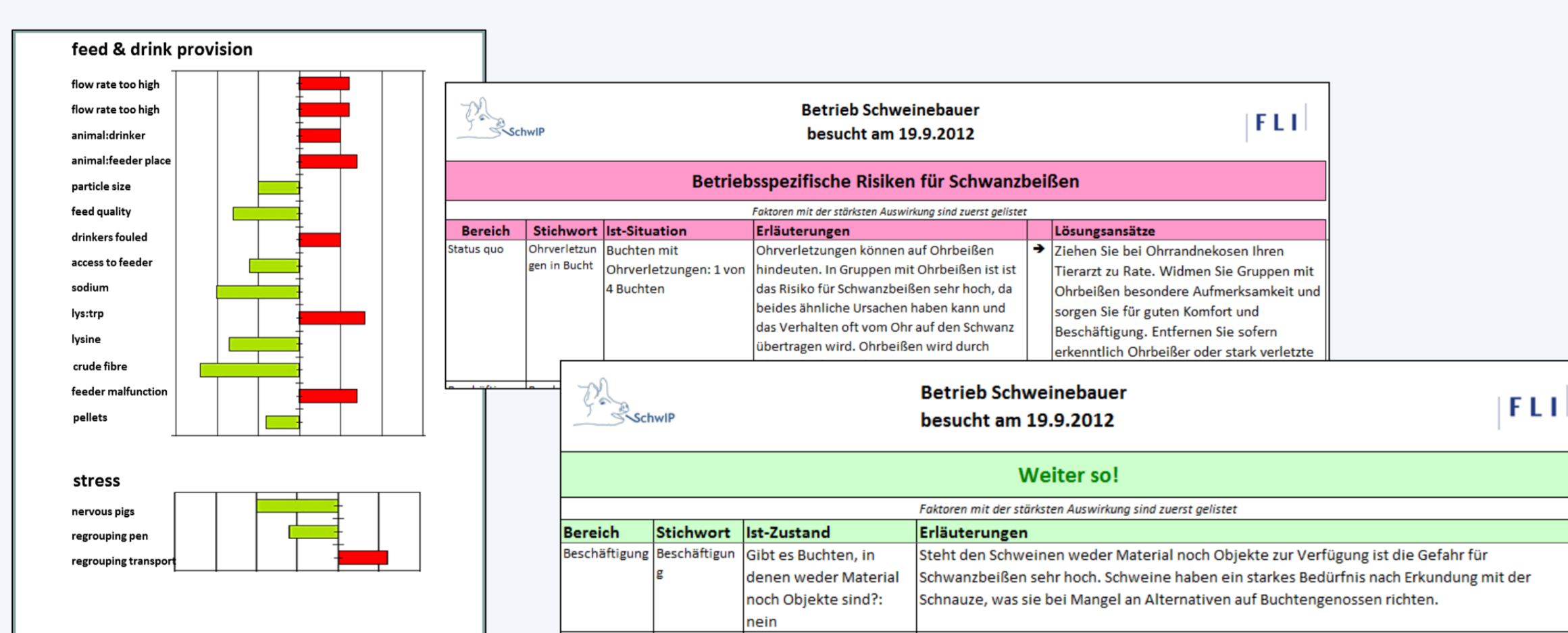
## Background & Aim

Tail biting is a high impact welfare issue in pigs with multifactorial causation. Our aims were:

- to develop and evaluate a novel tool for tail biting prevention in German fattening pigs
- to integrate knowledge transfer into the tool

## Methods

- The “SchwIP” tool combined animal health and welfare planning with farm individual risk assessment
- The integrated automated spreadsheet
  - allowed farm assessment and feedback on 1 day
  - contained risk factor impact weight by experts
  - generated a farm specific report based on interview and direct observations
- The report highlighted farm strengths and weaknesses and explained factors:



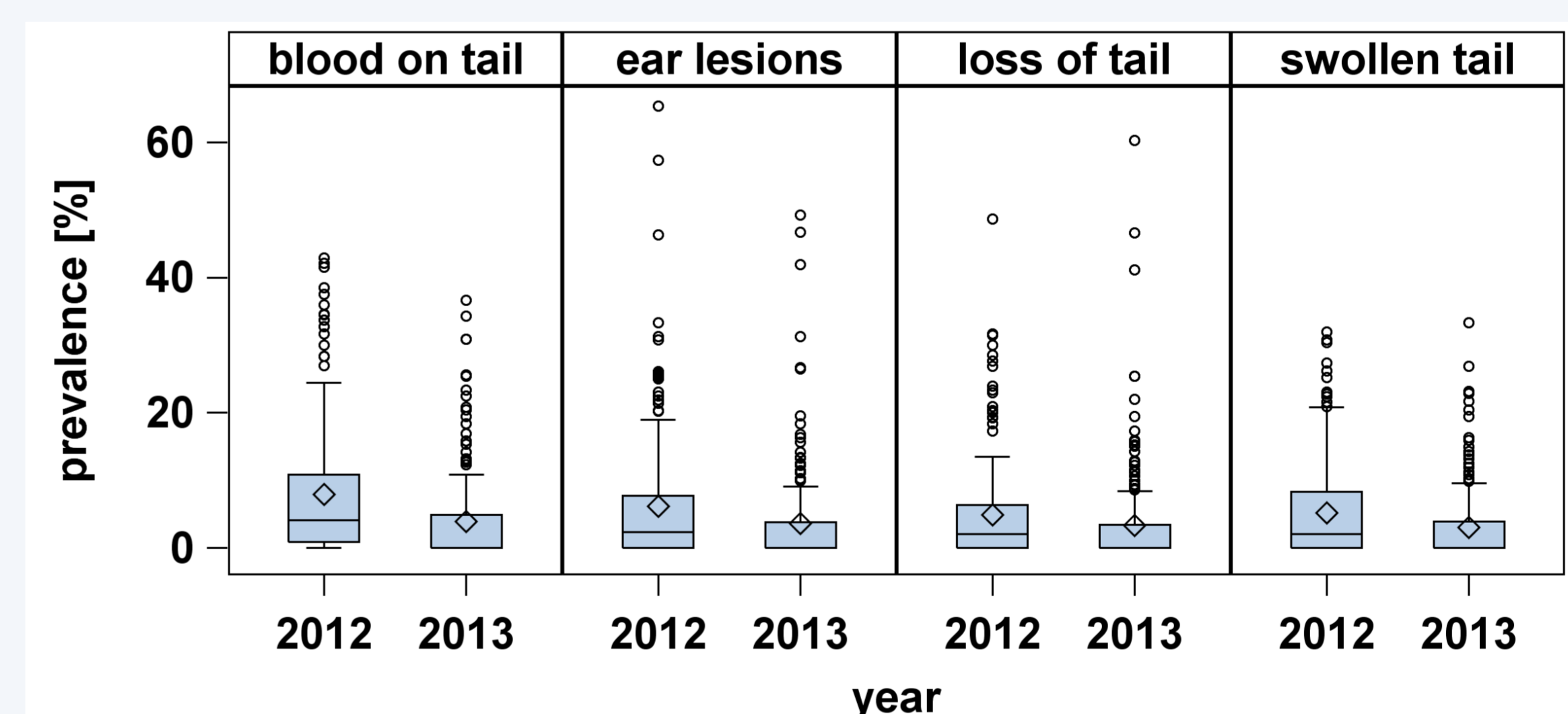
- SchwIP was applied on 188 conventional German farms once in 2012 and 2013, respectively, by 84 trained farm advisers and veterinarians (AV)
- 146 of the participating farmers and 48 AV completed anonymous feedback questionnaires
- Total risk = % of maximum possible risk weight sum
- Differences of risk points or lesion prevalences were tested with Wilcoxon signed rank tests. Lesion tests were Bonferroni corrected.

## Conclusions

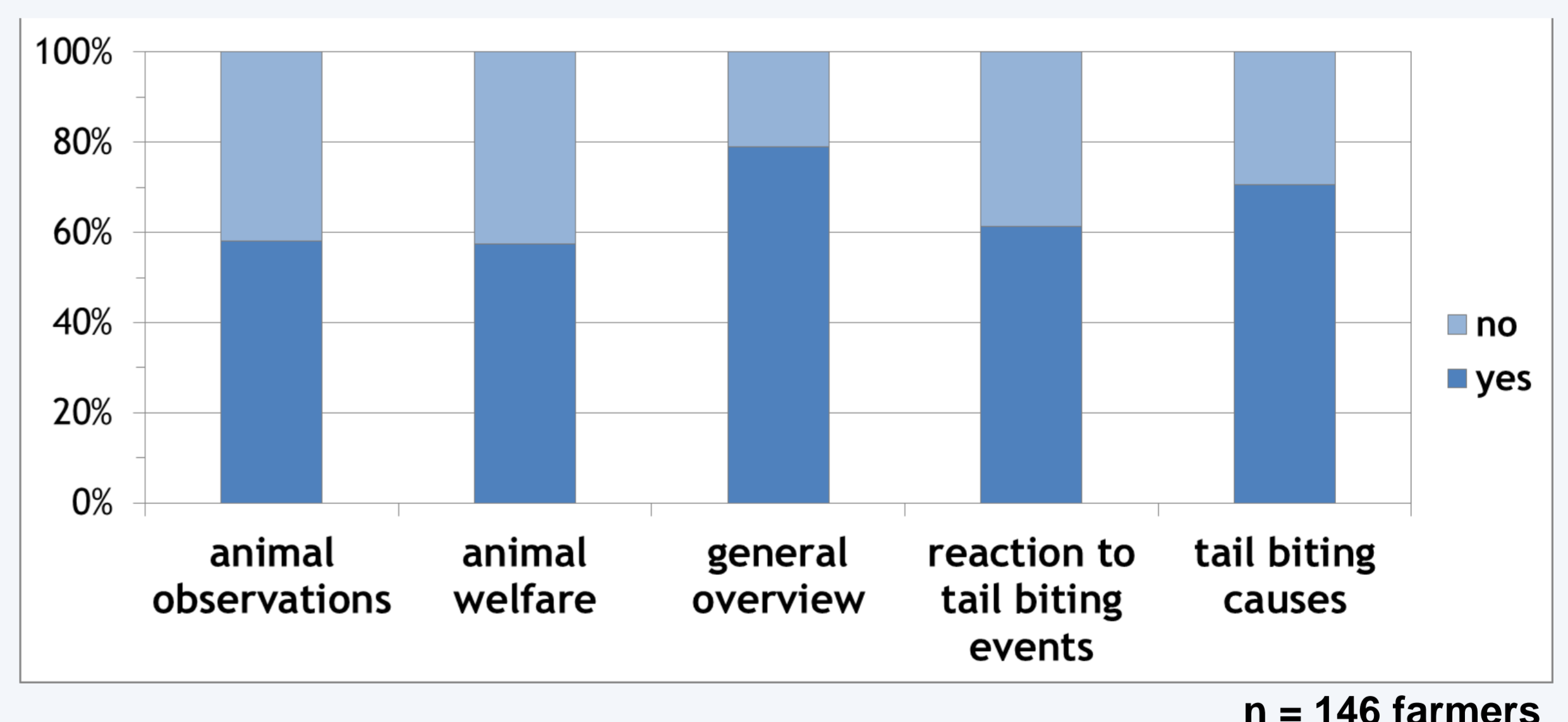
- Combining risk analysis with animal health and welfare planning seems a promising approach for the reduction of tail biting in fattening pigs.
- Farm specific reports with causal explanations facilitate farmer engagement and knowledge transfer.

## Results

- Median (Q25 - Q75) fattening places per farm: 1,200 (850 - 1,710)
- Total tail biting risk significantly decreased from 2012 to 2013 (median difference -3.5 %, Q25 = -8.2, Q75 = 1.1, p < 0.01)
- Prevalences of lesions also decreased significantly (median differences range 0 to -2.2%, all p<0.05):



- The general approach was well received by participants
- Farmers gained new knowledge on:



- 79% of AV stated that they would be able to integrate SchwIP in their daily work

## Acknowledgements

Part of this research project was funded by „Gemeinnützige Gesellschaft zur Förderung der Forschung über die Zukunft des Tierschutzes in der Nutztierhaltung mbH“ and the State of Lower Saxony. The authors would like to thank the participating farm advisers and veterinarians and all participating farmers for their support.