



HAL
open science

An app assessing animal welfare through animal-based measures

Léa Michel, Cécile Guillon-Kroon, Tristan Doublet, Laure Bignon, Valérie Courboulay, Nathalie Bareille, Raphaël Guatteo, Marie-Christine Meunier-Salaün, Amélie Legrand

► To cite this version:

Léa Michel, Cécile Guillon-Kroon, Tristan Doublet, Laure Bignon, Valérie Courboulay, et al.. An app assessing animal welfare through animal-based measures. 7. International conference on the assessment of animal welfare at farm and grip level (Walf), Sep 2017, Ede, Netherlands. Wageningen Academic Publishers, 2017, Proceedings of the 7th international conference on the assessment of animal welfare at farm and group level. hal-01595554

HAL Id: hal-01595554

<https://hal.science/hal-01595554v1>

Submitted on 2 Jun 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution - ShareAlike 4.0 International License

An app assessing animal welfare through animal-based measures

Léa Michel¹, Cécile Guillon-Kroon¹, Tristan Doublet¹, Laure Bignon², Valérie Courboulay³, Nathalie Bareille⁴, Raphaël Guatteo⁴, Marie-Christine Salaün⁵ and Amélie Legrand⁶

¹Terrena Innovation, AEI, France, ²ITAVI, UMT BIRD, France, ³IFIP-Institut du porc, France, ⁴BIOEPAR / INRA / ONIRIS, France, ⁵INRA, UMR1348 PEGASE, France, ⁶CIWF, AgroCIWF, France; lmichel@terrena.fr

TIBENA (Terrena animal-based welfare measures for a New Agriculture) is an innovative tool supporting farmers in their animal welfare improvement process. This diagnostic tool, based on the 5 Freedoms, helps identify good practices and possible improvements, through 37 to 80 animal-based welfare indicators (depending on the species). The results are used to discuss many aspects of flock (or herd) management and welfare with the farmer: water and nutrition, comfort, health, stress level and animal behaviour. Construction of the tool began with an exhaustive consultation process: literature review (mainly Welfare Quality) and interviews with scientists and professionals. Then, the trial app was assessed in the field including 20 to 30 commercial farms per species and with an expert committee, until the tool was considered reliable and robust enough to be used on a large commercial scale. Reproducibility inter-observers was tested: the results' similarity correlation is 92.74% (3 observers and 2 farms) in pigs, and 98.1% (4 observers and 3 farms) in broilers. Reproducibility inter-farms is ensured: for each species, farms selected for testing were as different as possible regarding infrastructures and production methods. Technical feasibility was tested by different operators, and scientific validity was monitored until the end with bibliography and experts. By spending about one to three hours observing the animals, TIBENA gives an objective picture of the welfare state at the herd or flock level. Thanks to the clear and illustrated instructions, and the convenience of a smartphone app, anyone can use the tool and obtain a valid result. The app contains recommendations for welfare improvement. The app currently exists for pigs, broilers, rabbits and cattle, and is being developed for other farm species. During the period October 2015-December 2016, the TIBENA app was used on 54 Terrena farms to assess welfare and provide recommendations for improvement. The longer-term goal is to make the app available to the whole industry.