

## **DELIVERABLE**

### **D2.2.2: A LIST OF TOPICS FOR SCIENTIFIC AND TECHNICAL STUDIES IN THE NEXT WORK PROGRAMME**

### List of topics for scientific and technical studies in the current work programme

In the 2021-2022 work programme, improved methods of assessment will be reported for the following legal requirements:

1. The legal requirement on dust levels in broiler farms.
2. The legal requirement on dust levels in alternative systems for laying hens.
3. The legal requirement on loss of consciousness during waterbath stunning.
4. The legal requirement on checks of loss of consciousness during waterbath stunning in regards to appropriate sample size used during checks.
5. The legal requirement on checks of loss of consciousness during waterbath stunning in regards to appropriate frequency of checks.

This will be done in relation to the three priority areas: welfare of broilers on farm (Directive 98/58/EC), welfare of laying hens in alternative systems (Directive 1999/74/EC) and loss of consciousness during waterbath stunning of broilers and turkeys during slaughter (EC No 1099/2009).

The development of a better method for assessment of dust will involve a field study comparing different methods of assessing dust levels on-farm, including sensorial assessment, assessment by use of the dust sheet test and measurement by use of a dust measuring device. Presently, sensorial assessment is by far the method used the most by inspectors, but it is prone to high levels of subjectivity, and therefore the reliability is likely to be low. The methodological description of the dust sheet test includes placement of the paper in the barn for three hours before assessment can be done, which is not feasible during official animal welfare inspections. For now, there is limited knowledge about the use of dust measuring devices during animal welfare inspections.

The reporting of a better method for assessment of loss of consciousness during waterbath stunning will be based both on a literature review and on an on-going field study on animal-based indicators for assessing unconsciousness during waterbath stunning, which is conducted by the partners of EURCAW-Poultry-SFA with IRTA as the responsible partner. The study aims to assess the repeatability among observers and the feasibility under different slaughter conditions of the indicators of consciousness identified in previous literature reviews. Six slaughterhouses with different waterbath equipment, electrical parameters and throughput will be visited to identify the most robust indicators under those conditions.

The reporting of a better method for assessment of suitable sample sizes and frequencies of checking unconsciousness will be based on a literature review and existing tools for sample size calculation. The final aims are to provide a user-friendly sampling protocol to calculate based on the potential failure rate, the throughput number of animals that need to be checked and the frequency of sampling.