D-AWARE PROJECT: DIGITAL TECHNOLOGIES TO SUPPORT POULTRY FARMERS IN THE ASSESSMENTS OF HEALTH AND WELFARE

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Currently, animal welfare is a well-established dimension of the sustainable animal production. Farmers already perceive animal welfare as a management aspect, acknowledging the interconnections between welfare, health, and performance. In this scenario, the Welfare Quality (WQ) and AWIN® projects developed protocols to assess and control risks associated to animal welfare for different poultry species. The Techwel project combined these protocols and developed the Broiler App, a tool to carry out broiler welfare assessments. However, the implementation of such combined protocol requires training and time to collect data, and therefore, while useful for scientific purposes, it is not practical for farmers. The objective of the D-AWARE project is to develop a simplified digital tool to support meat poultry farmers during regular welfare self-assessments. This tool (the D-AWARE app) will be based on sub-sets of key on-farm and at slaughter indicators, specific for turkeys and broilers, with a high predictive capacity of the on-farm welfare status of flocks. To develop the D-AWARE app, complete sets of on-farm and slaughterhouse welfare indicators will be obtained for broilers and turkeys. With the data, AI tools will be applied to explore and identify key welfare indicators with the best predictive potential. Based on these indicators, the D-AWARE app prototype tool will be developed, and then tested by different end-users. A market transference and valorisation strategy will be developed in parallel. At the end of this project, it is expected that the D-AWARE app will be ready to be transferred to the market, and to be adopted and used by meat poultry farmers and companies both from a national and international scale. Adoption of the D-AWARE tool during meat poultry daily management routines will allow having first-hand, quantitative information about flock health, welfare, and performance with little economic and time investment. Farmers will not need to have a high technological competence to be able to use the app and to obtain practical information based on solid scientific grounds. This pocket tool will facilitate early detection of welfare problems, being the animals the most direct beneficiaries as their health and welfare will be easily monitored, and corrective measures will be taken in case deficiencies are detected. This will also maximize the possibilities of successfully passing welfare inspections, as well as improving productivity by assuring maximum flock welfare and performance at slaughter, thus having a positive impact on the economic outcomes of the meat poultry industry.