THE WELFARE OF BROILER CHICKENS DURING TRANSPORT TO SLAUGHTER PLANTS

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The broiler industry is substantial: 200 million broilers are transported and slaughtered annually in Belgium alone. Transport to the slaughter plant is a critical phase of the production process. Heat stress, metabolic disorders and injuries could be intensified by transport, with economic implications. The aims of this on-going study are to develop a protocol for welfare assessment of broilers during transport, and to use this protocol to assess the current transport practices in Belgium. Also, the protocol will be simplified for commercial use.

The developed full protocol contains animal-based measures from the Welfare Quality® (2009) protocol, the EFSA (2011) report on transport and other literature. Measures are recorded just before and after catching and just before and during slaughter. Preliminary results (n=20 summer transports) show a decrease in body weight after transport compared to before catching (mean $\pm$ SEM: 2.48 ± 0.01 vs. 2.63 ± 0.01kg; $p<0.001$). Catching led to an increase in the percentage of birds with broken wings (0% before catching vs. 1.27% after catching, $p<0.001$). Transport led to a further increase in wing breaks (1.27% before transport vs. 3.5% after transport, $p<0.001$). Percentage of birds with skin lesions was higher after transport (16.1%) compared to before (6.6%; $p<0.001$) and after catching (8.3%; $p<0.001$). Plumage was more soiled after transport ($p<0.001$) and rectal temperature ($p<0.001$) decreased after transport, compared to before and after catching. Dead on arrivals and broken wings were positively associated with mean ambient temperature (resp. $p=0.031$ and $p=0.003$), but not with transport duration or lairage time ($p>0.05$). These preliminary results show an effect of transport on broiler welfare. Risk factors for and economic implications of welfare problems are yet to be determined.