

# Comparison of the Behaviour of Three Groups of Chickens (*Gallus domesticus*) during Their Growth: Preliminary Results

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## ***Introduction***

Understanding animals' behaviour is especially challenging in farm animals. Concerning poultry, the large number of individuals, prohibits the performance of specific observations. Classical behavioural tests are too time consuming (Campo et al. 2000). Our goal was to find a way to observe known consequences of different disturbances to conclude on a specific related range of behaviour. In this way, straightforward tests would be able to be performed by numerous persons (i.e. technicians, behaviourists, breeders). In poultry, two main ranges of behaviors are referenced. The first one is fear, characterised by immobility (Gallup 1977), and the second one is stress, characterized by several factors, such as the heterophil over lymphocyte ratio (HLR) (Puvaldolpried and Thaxton 2000). Because we believe that the management of farm animals is very different from birds in natural conditions (Dawkins et al. 2004) we introduced another kind of parameter, which was called "atmosphere" (i.e. comparing natural conditions to classical rearing husbandries). To this aim, different treatments were compared: adoptive hens (fake or real) and putative maternal pheromone. This experiment was intended to study the relationship between physiological criterion and behavioural observations, in different atmospheres.

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