



Personality traits and exploratory behavior in slow-growing broilers

Free-range system provides an outdoor range for broilers in order to allow them to express their natural behaviour. Nevertheless, we observe high variability of outdoor range usage by broilers due to large number of factors.

Broiler's range usage can be individually quantified thanks to a distance index and qualified as his exploratory behaviour. It has been highlighted that range use is stable over time (early and late access), defining exploratory behaviour as a personality trait.

On top, foraging behaviour, locomotion and social motivation were linked to the exploratory behaviour. However, this work was only performed on one strain, thus the genetic factor could not be excluded.

Broilers' exploratory behaviour

To precisely define broilers' exploratory behaviour and its components, we investigated among four different slow growing breeds. We noticed a strong correlation between the exploratory behaviour at 37 to 46 days old and at 56 to 67 days old in all 4 strains. Thus, we confirmed that exploratory behaviour is a personality trait.

Foraging and locomotion

Regarding, foraging and locomotion, we found no steady links with range use. However, we only observed foraging and locomotion before range access when broilers were 14 to 19 days old and animals' growth could influence their personality. Indeed, social motivation was noticed at not stable in time since no correlation was detected between the first social motivation test performed at 22 to 25 days old and the second round of test performed at 50 to 53 days old.

Conclusion

Our results suggest that in very young animals, when personality traits are probably not yet established, early behavioural patterns may be poor indicators of later range use.



The PPILOW project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement N°816172.

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