

Correlations between fearfulness and social behaviours in an F7 intercross of red junglefowl and White Leghorn layers



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Background

Selection in modern chickens have been on production, either egg laying or rapid growth.

This thesis is part of a larger reaserach area looking into how this selection have affected other traits and what the genetic mechanisms behind this are.

If correlations between traits can be found in the intercross, the traits in question are controlled by the same gene, or by two genes closely situated on a locus.



Aim

- Are there any correlations between traits in the intercross?
- Are there any gender differences?
- Are weight connected to any of the traits?

Method

80 chickens (40 males, 40 females)

Generation nr 7 of an intercross between red jungle fowl and White Leghorn layers

Series of 5 behavioural test, examining



Results

- Correlations between tonic immobility and aggression
 & fear and sociality
- Males generally more fearful than females
- Weight connected to behaviours in males; heavier males less fearful than lighter ones



Conclusion

The found correlations suggest that there could be a genetic link between the traits in question, but no conclusions can be drawn.

Selection for production traits seem to affect males and females differently.

In male chickens weight does matter, whereas it does not in females.

