



The Effects of Hatchery Routines on Commercial Leghorn Chickens

Supervisor: Per Jensen **Rosemary Whittle** Email: rosie.whittle11@hotmail.co.uk



Hatchery Routine



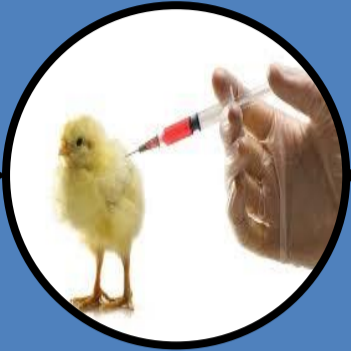
Incubation



Egg shell removal



Sex sorting



Vaccination



High speed conveyer belts



Transport to rearing facility

Aim

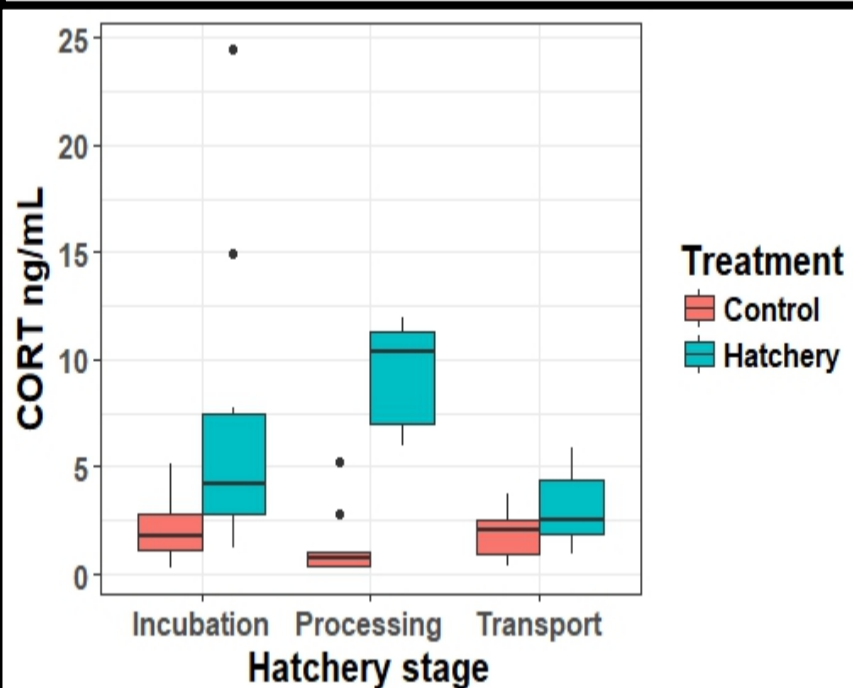
The aim of this project was to assess the acute and chronic impacts of hatchery routines on commercial leghorn chickens by comparing behavioural and hormonal differences between chickens exposed to hatchery routines and a control group.

Results

Immediate Effects of Hatchery Routines

- Hatchery chickens had ↑ CORT than control chickens after Incubation and Processing

CORT Levels Taken at Different Stages of Hatchery



Acute Effects

- Hatchery ↑ weight
- Hatchery ↑ fear in Novel Arena testing
- Hatchery ↑ CORT response to restraint

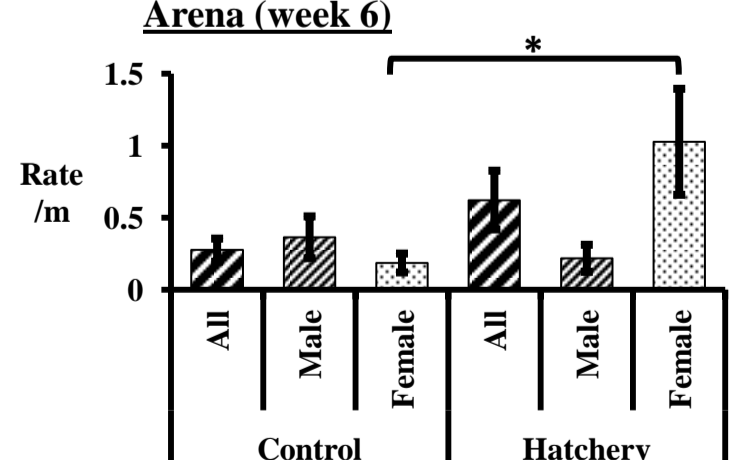
Chronic Effects

- Hatchery ↑ comfort behaviour in Novel Arena
- Hatchery ↑ CORT response to Restraint Test
- Hatchery ↓ Tonic Immobility time
- Hatchery ↑ feather damage
- Hatchery ↑ number eggs and ↑ Estradiol

Hatchery Males vs Females

- Females ↑ comfort behaviours in Novel Arena
- Males ↑ frequency of vocalisations in Tonic Immobility
- Males ↑ feather damage

Comfort Behaviours During Novel Arena (week 6)



Conclusions

1. Hatcheries cause high stress response
2. Hatchery chickens were more stressed at 1 week old
3. Hatchery chickens may cope better with stress in later life
4. Males were more stressed by hatchery

