

The influence of floor substrate in first weeks of life on feather pecking during rear and lay

A DUTCH AND NORWEGIAN APPROACH



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Paper in system first weeks of life

Chicks are placed in aviary system on cardboard paper (in NL)

When do farmers remove the paper and open the system?

1. **Litter available** = paper is removed only when system is opened
2. **Litter disruption** = paper is removed at 3 weeks of age – system not opened until 4 weeks of age



n = 25 farmers; n = 47 flocks Dekalb White and ISA Brown

Litter provision when system is opened

Aviary system is opened and young pullets have access to corridor and different tiers of the aviary

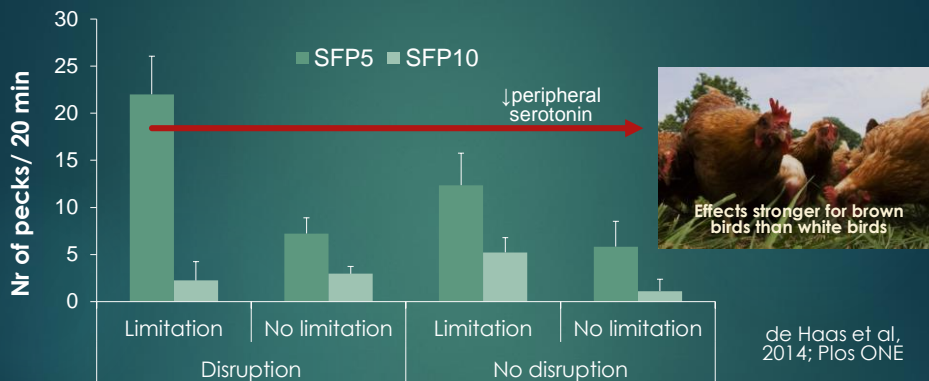
What kind of litter substrate is provided?

3. **No limitation** = wood shavings are provided

4. **Limitation in litter supply** = hardly any litter is provided (i.e. often remnants of paper)



Consequence on severe feather pecking (SFP) during rearing (n=47)



Effect on feather damage at lay (not direct)

high SFP at 5 weeks = more damage at 40 weeks

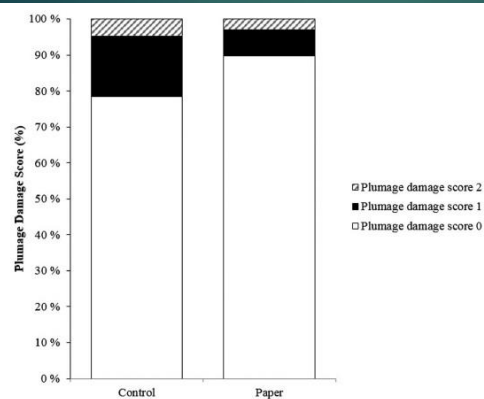
de Haas et al, 2014; AABS

Paper vs No paper

- Norwegian flocks - Non beak trimmed (since 1974)
 - 5 aviary rearing farms
 - 23 aviary production farms
- Two treatments
 - Paper group – paper from 0-6 weeks
 - Control group - no paper
- ▶ At 30 weeks
 - ▶ Feather pecking observations
 - ▶ Plumage damage score



At 30 weeks



Litter reduced
plumage damage

- ▶ Odds ratio = 3.28
- ▶ $p = 0.04$

Tahamtani et al., 2016
Poultry Science

Effects on fearfulness

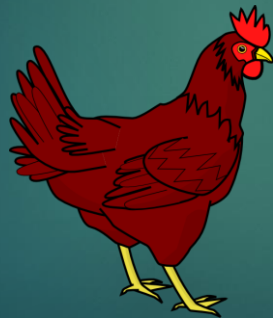
- ▶ Margrethe Brantsæter
Can minor, easily applied alterations of routines during the rearing period reduce fearfulness?

Thursday 10 August, 16:15

→ Possible link?

Conclusion

- ▶ Frustration -> redirected foraging behaviour -> FP
 - ▶ Early life stress? (Faye's talk on Wednesday)
- ▶ Access to substrate influence microbiota
- ▶ Fear -> causal or consequence?



Thank
you!