

“Does fly nets on chicken houses reduce the number of Campylobacter-positive broiler flocks?”

By Marianne Sandberg (msa@if.dk), Danish Agriculture and Food Council

“Yes, fly nets reduce the number of Campylobacter-positive broiler flocks – but only by 17% as opposed to 31% - 36% shown earlier. The size of the effect is dependent on compliance with other bio-security measures. Under all circumstances, fly net is an expensive investment!”

Objective

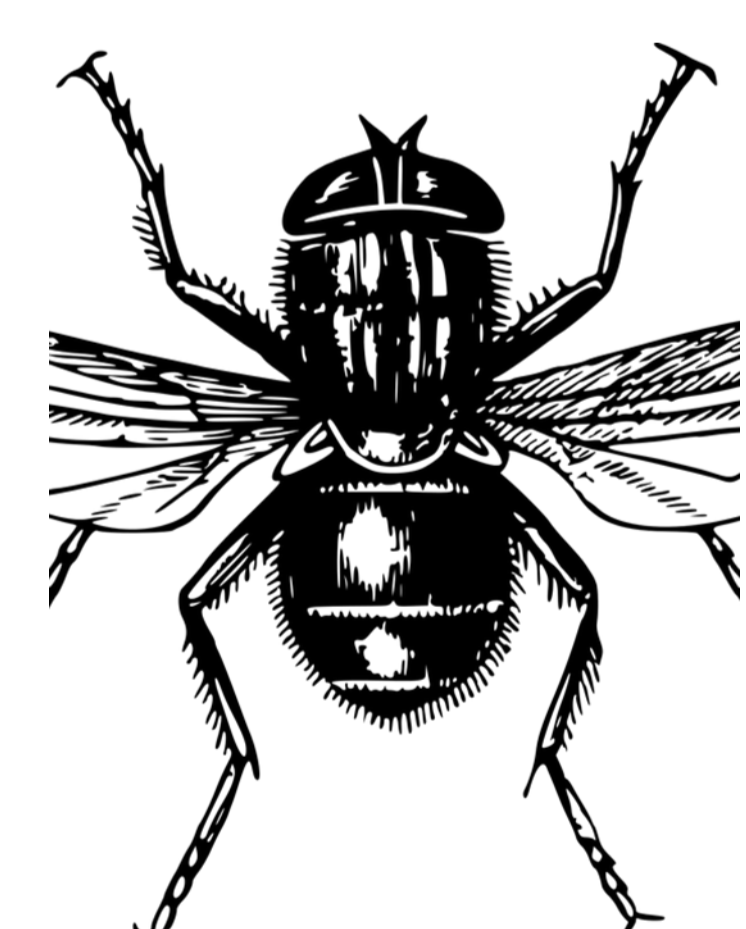
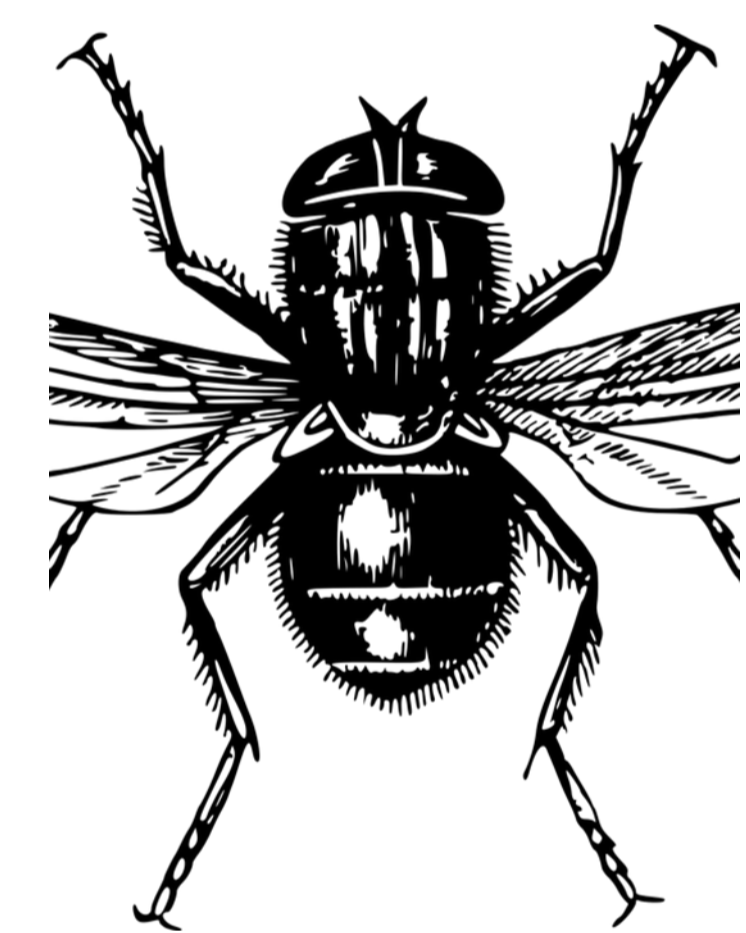
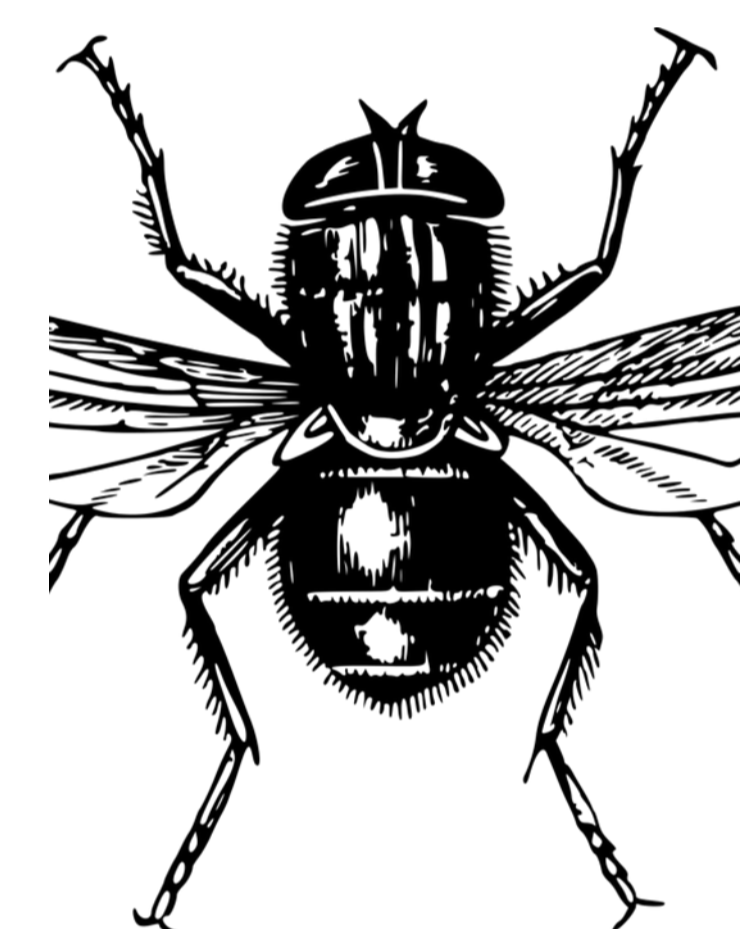
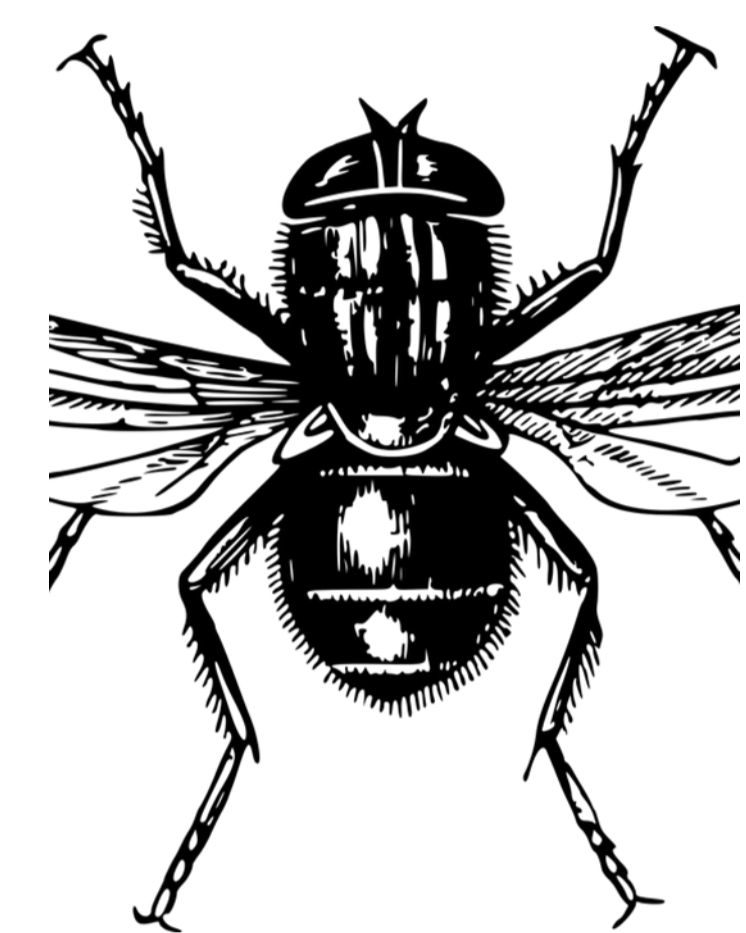
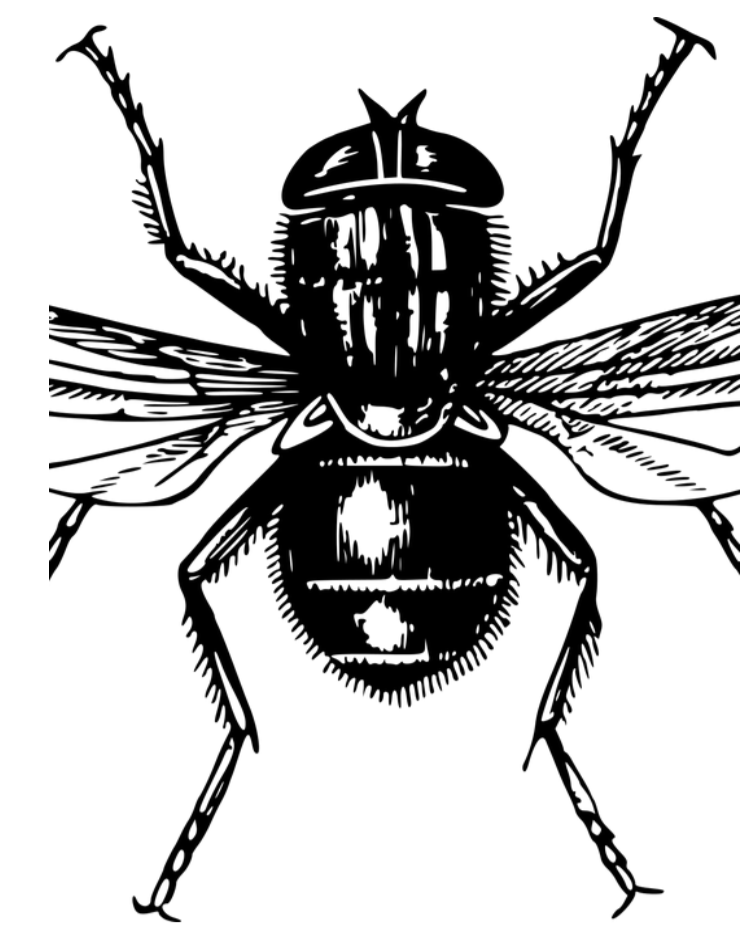
Additionally to investigating the effect against Campylobacter, broiler producers wanted more evidence for that fly nets do not hinder ventilation or imply high extra costs. The objective of the study was to conduct an evaluation of existing barriers for implementation of fly nets in Danish broiler houses: 1) practicalities and safety, 2) Campylobacter reducing effect when biosecurity is sub-optimal, and 3) expenses related to fly nets and their on-house montage and cleaning/maintenance.

Materials and Methods

A total of 12 fly net houses (with 4 different prototypes) and 29 houses with no fly nets were included in an intervention study during summer 2016 and 2017. In 2017 the number of houses with fly nets and no fly nets was reduced to 4 and 18. Compliance with biosecurity differed in the included houses/farms. The difference in prevalence of Campylobacter-positive flocks from the summer 2014 and 2015 to after implementation of fly nets in 2016 and in 2017 was calculated in houses with and without fly nets – and a t-test was used to evaluate whether there was any significant difference between them.

Results, discussion, conclusion and perspectives

Only the prototype for horizontal ventilated houses made of kevlar and attached to light shade/walls with velcro worked well – but with a price of about € 6600 per house. This amount could be reduced, if producers put own effort in montage. Houses with fly nets had a 26% - 20% reduction in prevalence of Campylobacter-positive flocks from 2014 & 2015 to 2016 and to 2017 respectively as opposed to a 10% - 3% reduction in the ones without flynets (P= 0,3 for 2016 and 0,4 for 2017). With the existing economic incentives in place, this implies that the broiler producer needs >35 years to pay the cost back – which very likely exceeds the lifetime of the fly net. In addition maintenance and cleaning of the fly nets should be added.



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