

## The effects of perches in furnished cages

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The aim of the study was to inspect the effects of perches in furnished cages (FC) on the behaviour, egg production, and feed consumption of laying hens. Perches in conventional cages (CC) diminish activity and feed intake of laying hens. In FC, group size and total area are greater than in CC. These factors tend to increase the activity, and thus the energy requirement and feed intake of the hens. A total of 352 hens were housed at 16 weeks of age in 8-hen FC. There were 44 cages together: 12 cages had perches all the time from the housing until the end of the experiment (control or P16); from 32 of the cages the perches had been removed. Perches were installed into 12 of these cages when the hens were 19 weeks of age (P19), and 20 cages remained without perches (NP). The experiment lasted for 7 four-week periods or 28 weeks. Feed intake and egg production were measured over each 4-wk period. The behaviour of 9 focal hens was observed using instantaneous sampling at every 5 minutes. The sampling took place during a 2-week period at the age of 35–36 weeks, so that the observations of each focal hen covered one light period (14.5 hrs). The number of hens on perches and in nests was recorded at 17, 20, 23, 26, 34, and 42 weeks of age, on three consecutive days, and three times each day (at 6 and 11.5 hrs after lights-on, and at 1 hr after lights-off). The use of the litter-box was recorded on the same days. Statistical analysis (Chi<sup>2</sup>-test or ANOVA) were performed using SAS (SAS Institute Inc. Cary, NC). Presence or absence of perches affected feed intake only during the first 4-wk period. From the 2nd to 4th period, feed conversion ratio was poorer in the group without perches than in the control group. No effects of perches were found on laying rate or egg production. Hens without perches were more active (70% of observations) than those with perches (61 and 63% of observations in P19 and P16 groups, respectively). Hens in cages with perches sat more often than those without perches, whilst the hens without perches stood and walked more often. During the observations in the dark, there were more hens in nests, in the cages without perches (20%) than in cages with perches (12%). Based on the results of this study, perches reduce bird activity in FC, and help to reduce the number of hens spending their night in nests. Keywords: laying hens; furnished cage; behaviour; egg production; perches.

**Keywords:** laying hens, furnished cage, behaviour, egg production, perches