

HOW SHOULD A HEN RUN BE STRUCTURED SO THAT IT IS USED EVENLY BY LAYING HENS?

E. Zeltner*

Research Institute of Organic Agriculture (FiBL), Frick, Switzerland

*Correspondence: esther.zeltner@fibl.ch

The aim of this study was to obtain an even use of the hen run with structures as an uneven use leads to a nutrient and heavy metal overload on the frequently used areas. In particular, we looked at the preference of hens for a certain kind and amount of structuring elements.

Eight groups of 20 hens (LT) were put into pens with access to a hen run of 5m²/hen. Per group the run was divided into two parts (A, B) by marks at the fence and the entrance for the hens. In experiment 1, part A had only one shelter in the size of 1% of the area. Part B had 5 such shelters. In experiment 2, A was supplemented with 4 different objects of the same size (perch on two levels, “pecking-tree”, box with fir-cones and fir-trees). Part B stayed unchanged with 5 shelters.

Per experiment the hens were observed on three consecutive days after four weeks of acclimatisation. In 18 scan samples per day (interval 20 minutes), the behaviour and position of each hen was recorded.

The analysis was performed using Wilcoxon paired t-test.

In experiment 1, we could not find a significant difference in the use of the two parts (T=6, ns). On average 24.4% of the hens were on part A, compared to 32.1% on part B. The hens were moving more frequently on part B (T=0, p<0.05).

However, in experiment 2 there were significantly more hens on part A (38,6%) than on part B (29,2%, T=3, p<0,05). The hens were pecking and resting more frequently on part A (T=4 resp. 3, p<0.05).

These results show that the quality and variation of structures is more important for the use of the hen run than the amount of structures. This is probably due to individual preferences of hens for different functions of structures, like foraging, resting, moving.