

EFFECT OF ACCESS TO DUSTING SUBSTRATE ON BEHAVIOUR IN LAYERS FROM DIFFERENT TYPES OF CAGES

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Summary. The objective of this work was to study effect of access restriction to dusting substrate on behaviour in laying hens when they were reared and housed for a long time under conditions close to commercial conditions. Twenty laying hens of ISABROWN hybrid at the age of 28 weeks were used in the experiment involving two types of technologies (A group from furnished cages, B group from nonfurnished cages). Means for egg production were 89.7 and 92.20 % at the ages of 28 and 29 weeks. Dustbathing was recorded in two locations of the aviary: in the housing area and in the dustbath place (DBP). The water ford obstructed the access to DBP. A DBP was made available with alternating levels of difficulty. The first level of difficulty was a lack of water ford; the others included water. Day 1 – difficulty level 1. Day 2 – difficulty level 2, access to DBP through a water (20 mm). Day 3 – difficulty level 3, access to DBP through a water (70 mm). Day 4 – difficulty level 4, access to DBP through a water (150 mm). Day 5 – difficulty level 5, access to DBP through a water (180 mm). The observations were performed during 12 hours during five consecutive days. Experiment had two repetitions. We tested the hypothesis whether limitation of access to dustbathing substrate influences behaviour of hens. Highly significant differences were found among technologies, levels of difficulty and hours. Lower average times of dustbathing in the housing area and slightly higher average times of dustbathing in the DBP were recorded in group from furnished cages. Statistical differences were calculated between groups with difficulties 1, 2 and 3. The most performed activities with each difficulty were feeding, standing, and perching. The greatest differences between groups were in the 3rd difficulty. Hens of A group received feed longer time (312 min versus 204 min; $P < 0.001$) and stood shorter time (36 min versus 96 min; $P < 0.01$) than hens from B group. Results suggested that dustbathing is under the control of external factors, especially of former housing.

Keywords: layers, behaviour, dustbathing, restriction.