

Dust bath frustration of female broiler breeders on Astroturf

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Broiler breeders and layers are kept in cages with Astroturf as dust bath material. According to Van Liere (1991) a “normal” bath takes 20-30 min: I. an introductory stage (in which substrate is brought into the plumage). II. a consummatory stage (in which substrate does its “work”). Shorter and longer baths are “abnormal”, probably because of difficulties to proceed to stage II. A bathing function is the removal of stale feather lipids, which attract parasites. In the present experiment the dust bath behaviour of female broiler breeders in group cages with Astroturf is described. 60 female and 6 male Cobb broiler breeders in Commune cages with ¼ floor (196 cm² per animal) covered with Astroturf. Observations were made during 1.5 hours per day, at the middle of the light period, during eight days on hens aged 9 months. Feather lipid percentages of 10 samples (each consisting of feathers of 5 hens from the same cage) were analysed (NEN3443 method). 111 baths were observed. “Body/wing shake” occurred only after 6% of them (not surprisingly, its function being the removal of substrate from the plumage). Nevertheless, over 99% of the baths were performed on Astroturf. However, baths were ineffective (feather lipids: 2.9 %), indicating that Astroturf is unsuitable as a dust bath material. In the Commune cage 9.2% of the baths was longer and 85.5% shorter than “normal”. Only 4.4% of the baths had a normal duration. For layers under laboratory conditions these figures were 8%, 49% and 43% respectively (Van Liere, 1991). This suggests that Astroturf is unsuitable as dust bath material. 81% of the baths ended without any obvious external disturbance. Nevertheless, stage II behaviour was only performed in 20% of the baths, also suggesting that Astroturf is unsuitable dust bath material. The stage I behaviours “scratching with one leg” and “head rubbing” were not performed in, respectively, 52 and 60% of the baths, suggesting even more premature disruptions. Dust baths that started with stage II are described after 5 month of dust bath material deprivation (Van Liere, 1991). No such baths were observed. It is concluded that dust bath behaviour of female broiler breeders is frustrated on Astroturf.

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