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Effects of two types of litter material on the behaviour of broiler chicken

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When broilers are raised under deep litter system, the type of litter material has direct impact on production, health, welfare and behaviour of the birds. Paddy husk (PH) is the most popular litter material used in Sri Lanka. Refused tea (RT) has also shown to be a promising alternative for PH. The objective of this study was to determine the effects of above two litter materials on the behavior of broiler chicken. Twenty one days old broiler chicks were allocated into 10 floor pens having either PH or RT as litter material. Each pen housed four birds. Birds were acclimatized for pens and the respective litter material from day 21-34. Behaviour of the birds was observed three hours per day (2-5 pm), in five consecutive days from day 35-39. An observer was assigned to each pen and was asked to record the frequency of and the time spend on eight pre-determined behaviours (eating, drinking, walking, standing, laying, foraging, feather pecking and inter bird interactions). Laying was the most obvious behaviour, both on PH (72% of the time budget) and RT (75% of the time budget). Also, laying was the most frequently engaged activity on both PH (8 times/hr) and RT (8.4 times /hour). Time spent on foraging was significantly higher on PH (3.4%) than on RT (1.8%). Meanwhile, the time budget and the frequency of inter-bird interactions were significantly higher for the birds raised on RT, compared to those kept on PH. It was concluded that, RT when used as a litter material for broilers, reduced the time spent on litter eating while increasing the time spent on and frequency of inter bird interactions.

Keywords: litter, broiler, behaviour, paddy husk, refused tea