Abstract

Background: the size of commercial cages has been raised as the major component in the welfare of laying hens. Objectives: to describe the effect of floor space on the behavior of laying hens housed in commercial cages. Methods: one hundred and thirty-five Hy-Line Brown laying hens (aged 25 ~ 50 weeks) were housed in different sized commercial cages and monitored using video technology during 10 h per day at 2-week intervals. Results: total time spent standing, dozing, and sleeping were significantly higher in small cages than in medium and large cages. Total time spent walking was higher in large cages. Cage-pecking frequency was higher in small cages while stretching frequency was higher in large cages. Moreover, preening frequency was lower in small cages. Conspecific pecking was higher in small cages. Conclusions: cage size is a critical factor affecting the behavior of laying hens. This study can help managers to understand spatial relations in caged hens.

Keywords
Animal welfare, cage size, conspecific pecking, Hy-Line Brown, spatial relations.