

INCREASED FORAGING OPPORTUNITIES AS A MEANS TO REDUCE CANNIBALISM IN LAYING HENS

Ragen M. Trudelle-Schwarz, Ruth C. Newberry, Sylvie Cloutier & Catherine M. Ulibarri

Center for the Study of Animal Well-being, Washington State University, Pullman, WA, USA, 99164-6520

Previous studies suggest that feather pecking and cannibalism result when foraging behavior is redirected towards flock mates in the absence of more appropriate pecking substrates. We hypothesized that an increase in time spent foraging at food items in the feed trough would decrease the incidence of cannibalism in laying hens. We randomly assigned White Leghorn chicks to 32 groups of eight birds. Experimental treatments were arranged in a 2 x 2 x 2 factorial design and included (1) ad libitum pelleted feed versus the same feed provided in ground form, (2) access to alfalfa hay cubes provided at least 2 times per week versus no hay, and (3) access to novel food items provided at least 2 times per week and changed weekly versus no novel food items. We predicted that access to ground feed, hay cubes and/or novel food items would increase time spent foraging in the feed trough resulting in a lower incidence of cannibalistic behavior. Over 23 weeks of observation, hens fed ground feed exhibited a significantly lower incidence of cannibalism, fewer skin lesions, and better feather condition than hens fed the same feed in pelleted form ($P < 0.01$). Contrary to our prediction, for those birds fed pellets, provision of hay cubes resulted in an even higher incidence of cannibalism than if no hay cubes were given (feed form x hay interaction, $P < 0.05$). However, this effect was transient, being evident from 20 to 22 weeks of age only. Provision of novel foods had no protective effect on cannibalism, probably because these foods were rapidly consumed. Our results support the prediction that cannibalism is reduced when increased time is spent eating feed in ground versus pelleted form.