

Performance and range use of organic broilers with access to different vegetation in outdoor areas

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Outdoor range areas are an important part of the organic broiler production, and the question is how to make this area as attractive for the broilers as possible. The aim of the study was to investigate the influence of vegetation in outdoor range areas on performance, crop and gizzard content and range use of organic broilers. The experiment was performed on an organic farm in the summer of 2015 and 2016. The outdoor range was a grass field (F) or grass field combined with a plantation (GP). There were two replicates for each type of outdoor range. Eight hundred broilers were allocated to each replicate. Feed intake were registered daily. In 2015, 80 broilers from each replicate were weighed at 7, 14, 28, 42, 56, 70 and 84 days of age, and in 2016 at 28, 56 and 70 days of age. The range use was observed three times in 2015 and two times in 2016. Crop and gizzard content and composition were investigated in 12 weeks old broilers in 2015. From each range area, 2 male and 2 female broilers were killed in the morning and in the afternoon. The average daily gain was 40.8 and 39.3 g for GP and F, respectively in 2015 for the whole growth period, and 41.9 and 40.7 g for GP and F in 2016. The differences were statistically significant in 2015 but not in 2016. Feed intake was 125 and 133 g/day on GP and F, respectively in 2015, but feed intake per chicken or feed efficiency were not statistically different for the two types of range areas in 2015. The crop contained more material in broilers from GP than F, which was not the case for gizzard content. However, the results for crop content should be interpreted with care as outdoor range, sex, and time of day interaction were observed. The crop contained mainly feed and the gizzard mainly grass. It was observed that broilers on F remained more inside the chicken house than on GP, and broilers on GP were most often observed to stay in the area covered with trees.

Effect of grazing on the carotenoids and vitamins content in egg yolk of laying hens during storage

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The objective of this study was to compare the effect of housing system (enriched cage, free range and grazing) on the concentration of zeaxanthin, lutein, α -tocopherol, retinol and β -carotene in fresh egg yolks