

Undergraduate Research and Mentoring in New Biology

Enrichment value of door materials to cage laying hens

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his study aims to test if the type of material that cage doors are made of can provide enrichment, stimulation of the senses and mind, to caged laying hens. Due to space constraints, laying hens are not able to perform natural activities, such as sensory or environmental exploration. More enrichment-oriented cage systems, furnished cages, include a nesting box where a door flap separates the nesting area from the rest of the cage. If this study proves that the type of door material used may provide enrichment value, the door used in furnished cages can provide a dual-use of space separation and enrichment. Three test hens were placed in separate cages, each with two companion birds. The cages had three passageways with three different door materials – acrylic, chain links, and vinyl strips – that the hen could choose to move from cage to cage. The test hens were observed for behavior defined as either function or enrichment. Supported by The Undergraduate Research and Mentoring in New Biology program, NSF award #1041233.