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| **TITLE: Effects of functional sensory molecules on the behavior of broiler chicks under two different stocking density** |
| **PRESENTATION TYPE:**Poster |
| **CURRENT CATEGORY:**Animal Well-Being and Behavior |
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| **ABSTRACT BODY:**  The high level of stress in modern farm animals reduces individual performances.  The objective of the study was to measure the effect of a sensory feed additive based on orange essential oil rich in D-Limonene (VeO Premium: 250g/t which is expected to reduce stress perception, provided by Laboratoires PHODE) on broilers behavior in a situation of stress.  It was compared to a control feed without sensory molecules on 1572 Ross broiler chicks during 5 weeks. They were randomly distributed into 12 flocks of 51 birds and 12 flocks of 80 birds each (14 birds/m2 as the low stocking density (LSD) and 22 birds/m2 as the high stoking density (HSD)). Half birds (6 flocks) of each density were feed with VeO, others are controls flocks. Behavior was measured using cameras daily for 4 hours. Data were analyzed using two way ANOVA (Density X Feed additive).  During the period from 8 to 21 days of age, HSD significantly increased flapping behavior (1.75 vs. 3.88 ± 0.53) and decreased preening behavior (26.00 vs. 11.88 ± 3.16).  During the rearing period from 22 to 35 days of age, birds reared in HSD drastically reduce the preening behavior (4.00 vs. 19.25 ± 2.22), but this behavior was maintained when using VeO (12.25 ± 2.22). HSD increased behaviors that could be interpreted as stress indicators like flapping and decreased indicator of welfare like preening. These behaviors were less affected in the VeO group.  Sensory feed additives could modulate the broilers behavior in stressful situations like high stocking density. |
| **KEYWORDS:**stocking density, sensory molecule, behavior, broiler. |
| **CURRENT CATEGORY:**Animal Well-Being and Behavior |