**Live insect larvae for laying hens: effects on egg quality, feather conditions and animal behavior.**

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Feather pecking is widespread in intensive laying hens farming, negatively impacting performance, welfare and product quality. By increasing foraging behavior, live insect larvae can divert birds' attention, reducing damage from injurious pecking and having positive repercussions on welfare. This study aimed to evaluate the effects of live black soldier fly (*Hermetia illucens*) larvae on two slow-growing Italian breeds Bionda Piemontese (BP) and Bianca di Saluzzo (BS). Laying hens behavior, feather conditions, and product quality were evaluated. 169 laying hens and 24 males of BP and BS breeds (308 days of age; sex ratio 1:8) were allotted to 12 pens and fed one of two dietary treatments (3 replicates/treatment, from 12 to 19 birds/replicate) as follows: i) control diet (C): commercial feed and ii) HI: C + *H. illucens* live larvae. Live larvae were distributed as a supplement based on 6% of the expected daily feed intake. Feathering scores were given to all birds. The hens behaviours were video recorded and divided into 2 categories: duration (walking, ground pecking, standing still, resting) and frequencies (scratching, grooming, allogrooming, trotting, severe feather pecking, stretching, chasing, sand bath, feather shake, wing flapping). Eggs were collected in 3 different periods and were analysed to determine: egg weigh, length, and width; shell weight; albumen weight; yolk weight and colour. Data were analysed by General Linear Mixed Model (IBM SPSS Statistics V20.0.0, P value < 0.05). No significant differences were observed for both the mean and the total feathering scores between the C and the HI hens independently of the breed. On the contrary, the HI BP animals showed improved feathering scores when compared to the C group ($P<0.05$). The HI birds spent more time walking than the C group ($P<0.05$). Considering the frequencies, the HI hens displayed more grooming, allogrooming and trotting than the C birds. On the contrary, the C group performed severe feather pecking than the HI hens. The egg, shell, albumen and yolk weights, as well as egg length and width more, and yolk colour, were similar in HI and control group. The use of live larvae as environmental enrichment positively affects the plumage status in the BP breed. Furthermore, the addition of live larvae to the commercial diet did not negatively affect eggs quality but leads to a decrease in severe feather pecking and an increase in some comfort behaviors.