

P57 Temperature training in late-term quail embryos has transgenerational effects

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Aim of the study was to investigate transgenerational effects of temperature training during final incubation on hatching, growing and laying performance in quails. In the F1 trial quail eggs were incubated under conventional conditions (37-37.2°C, Control) or, from day 15 until hatching day 18.5, under warm stimulation (WS: 38-38.2°C/2 hrs daily). In the F2 and F3 trials eggs from F1 (control and WS) were incubated under conventional conditions. From all generations hatching rate, body weight of hatched chickens and, during the growing period of 42 days, body weight and feed intake were determined. In the following laying trial from day 43 until 80 onset of laying, laying intensity, feed intake and egg weight were recorded. In the F1 trial temperature training increased hatching rate and body weight of the hatched chickens. Similar results were found in F2, but not in F3. Body weight and feed intake were not different in males and females of both groups during the F1 trial. But, in F2 and F3 body weight was significantly higher in the during the F1 trial temperature trained groups. Further, in the WS groups (males F2, F3) feed conversion was improved. In the WS group onset of eggs was 1 day earlier and the mean egg weight at the start of laying period was higher. In conclusion, phenotypic changes induced by temperature training during the critical period of the development of thermoregulation before hatching (F1) may be transferred over the next generations (F2 and F3).

P58 Assessment of lead exposure through the consumption of chicken meat in and around Proddatur region of Andhra Pradesh in India.

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Lead is a ubiquitous heavy metal and due to increased industrial activity, the exposure to lead is increasingly alarming. In the present study, the exposure of human population to lead through the consumption of chicken meat was assessed. Proddatur region of Andhra Pradesh is an industrial area with chemical, cement industries and thermal power station. Sample of whole blood and meat of chicken were collected from 50 slaughter houses in and around Proddatur. The samples were digested using nitric acid with microwave digestion system. The amount of lead in the blood and meat samples of chicken was estimated using ICP-OES. The public health significance and impact of the levels of lead found in chicken meat were discussed. The area wise distribution of lead and possible sources was also indicated.



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