

## **Relationship among growth, behaviour and stress response in broilers and red jungle fowl when reared separately or intermingled**

### **ABSTRACT**

Relationship among growth, feeding behaviour, bird-to-bird pecking and stress responses was studied in commercial broilers (CB) and jungle fowl (JF) reared from hatching as separate (S) and intermingled (I) flocks. Body weight on Day 7 was greater for JF in I than S flock but not at other ages. In contrast, intermingling reduced body weight of CB at 7 days of age and thereafter. Percentages of chicks eating were greater for JF in I than S flock at 4 days of age. On Days 23 and 32, feeding occurred with higher frequency in JF than CB. On Day 25 and thereafter, JF reared intermingled, manifested bird-to-bird pecking behaviour towards their CB counterparts. Regardless of I or S flock, bird-to-bird pecking activity, remained relatively low within the JF population. Broiler chicks did not exhibit any damaging pecking activity. Stress attributed to being pecked was reflected by elevated heterophil to lymphocyte ratios in the intermingled CB. There were, however, no adrenal glands, bursa of Fabricius and spleen relative weights response to the stressor.

**Keyword:** Broiler; Jungle fowl; Behaviour; Feather pecking; Stress