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### **Behaviour of laying hens subjected to noise induced fear**

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Scientific understanding about the behaviour of chicken subjected to fear is of importance not only to improve the productivity but also to optimize the welfare standards. The objective of the study was to investigate the effect of fear, induced by sound on the behaviour of laying hens. Six White Leghorn layer birds were randomly selected from each of the 3 flocks in three cages. Behaviour of the selected birds of a one cage under un-feared condition was recorded in the first day. Next day birds in the same cage were feared by ringing a bell four times in 15 minutes intervals. Immediately after ringing the bell, recording of the behaviour of the selected six birds were commenced and continued for an hour. One trained person was assigned to each of the bird to make the behavioural recordings under both conditions. Two more similar observation cycles were done for the birds in other two cages in subsequent days. The comparison of the behaviour showed that the time spent on walking and litter eating and their frequencies were significantly reduced when birds were feared. Meanwhile, the time and the frequency of lying were significantly higher among feared birds. Interestingly, time spent on behaviours which had not been predefined in the ethogram was significantly higher in feared birds and that behaviour (other) was the most prominent behavior of those birds. The time spent on behaviours such as eating, drinking, sitting, standing, running and inter bird interactions were not significantly different between the treatments. The times spent on behaviours such as standing, eating, litter eating, drinking and undefined behaviours of feared birds during first five minutes after being feared were significantly different from that of normal birds. It was concluded that noise-induced-fear significantly alters the behaviour and evokes behaviours similar to tonic immobility in laying hens.

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