HUMAN BEHAVIOUR AFFECTS PRODUCTION AND WELFARE IN HENS AND BROILER CHICKENS

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This paper reviews the human-animal relationship in agriculture and its implications for the poultry industries. The behaviour of humans towards animals can produce high levels of fear of humans and the nature and frequency of these interactions may have marked consequences on productivity and welfare (Hemsworth et al., 1993). Observations on stockpeople in the pig and dairy industries indicate that the attitudes of stockpeople about interacting with animals were highly predictive of the behaviour of the stockpeople towards their animals. In pigs and cows, the aversive and rewarding properties of humans which increase or decrease fear of humans include, i) hits, slaps and kicks and ii) pats, strokes and the hand of the stockperson resting on the animals, respectively. In poultry, aversive properties of humans which increase fear of humans include fast speed of movement and unexpected movement or appearance of the stockperson. In laying hens high levels of fear of humans are associated with lower production in both commercial (Barnett et al., 1992) and experimental (Barnett et al., 1994) environments. In broilers low fear of humans is associated with improved feed efficiency (Hemsworth et al., 1994).

Based on the interrelationships between the stockperson's attitudes and behaviour and the behaviour, productivity and welfare of farm animals the following general model of human-animal interactions in agriculture has been proposed. Because a stockperson's behaviour towards animals is largely under volitional control, this behaviour is strongly influenced by the attitudes that the stockperson holds about the animals. These attitudes and consequent behaviours affect the animal's fear of humans which, in turn, affects the animal's performance and welfare. While there is excellent evidence in pigs and moderate evidence in dairy cows for the model, the evidence in poultry is more limited. An experiment to manipulate human attitudes and behaviours in the broiler industry showed some short-term effects on human behaviour and bird productivity but did not appear to influence the stockperson's attitudes, bird behaviour or long-term productivity. These findings suggest our understanding of the human behaviours that affect bird behaviour are currently insufficient to take advantage of the potential benefits of improved human-animal relationships in the poultry industries.


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