

## **THE PRICE BROILERS WANT TO PAY FOR FOOD UNDER DIFFERENT MOTIVATIONS**

E.A.M. BOKKERS<sup>1</sup>, P. KOENE<sup>1</sup>, T.B. RODENBURG<sup>1</sup>, P.H. ZIMMERMAN<sup>2</sup>, B.M. SPRUIJT<sup>1</sup>

<sup>1</sup> Ethology Group, Wageningen University, P.O. Box 338, 6700 AH Wageningen, The Netherlands

<sup>2</sup> Present address: Department of Clinical Veterinary Science, University of Bristol  
Langford House, Langford, Bristol BS40 5DU, UK

The consumer demand approach can be useful to gain insight into behavioural motivations. The aim of this study was to measure the maximum price (number of key pecks) broilers wanted to pay for a food reward under two motivations, realised by feed restriction. Furthermore, the effect of a short-term change in motivation on the price paid was studied.

Two groups of twenty broilers were fed on 50% or 75% of the amount of feed a broiler would eat when fed ad libitum. Birds were trained to peck a key for a 5-s food reward in an automated Skinnerbox. At 6 and 7 weeks of age, seven birds of the 50%-group and five of the 75%-group were subjected to two sessions under the normal feed restriction and to one session under a changed feed restriction, which implied that birds of the 50%-group received 75% feed and birds of the 75%-group received 50% feed the day before testing. Only one session per bird per day (maximum 30 min) was executed. At 6 weeks of age a progressive ratio schedule of +2 (PR2) and at 7 weeks of age a progressive ratio schedule of +4 (PR4) was used.

Birds of the 50%-group paid a significantly higher price for a food reward than the birds of the 75%-group under PR2 and tended to do that under PR4. Birds paid a significantly higher price under PR4 than under PR2. Under both PR schedules, no effect of changing feed restriction was found.

Long-term feed restriction had an influence on the motivation to work for food, but no short-term effect of changing feed restriction was found. The price was dependent on the used progressive ratio schedule. Broilers are sensitive for different levels of feed restriction and they can balance their investments and profits to a certain extent.