**Accuracy of horse workload perception by owners when compared to published workload parameters**

C. Hale1, A. Hemmings2 and H. Randle3,\*

**1**Institute of Biological, Environmental and Rural Sciences, Penglais, Aberystwyth,
Ceredigion, SY23 3FL, UK

**2**Royal Agricultural University, Cirencester, UK

3Duchy College, Stoke Climsland, Callington, PL178PB, UK

\*Corresponding author: email hayley.randle@duchy.ac.uk

A noted consequence of modern management of equids is that obesity is becoming ever more problematic. As with human health, over-consumption of a highly calorific diet, coupled with an increasingly sedentary lifestyle, appears to be instrumental in the increasing numbers of over-weight animals seen. Horses are reliant on their owners for provision of the food they consume, and in many cases, the exercise they receive. In order to accurately provide a suitable ration, the weight of the horse, plus the workload they are in must be considered to ensure suitability of the diet and thus minimise the occurrence of obesity. To date, the majority of research conducted which aims to examine causes of obesity in domesticated equidae has focused on diet alone, with few studies looking at both owner-perceived and actual levels of workload. The aim of this study, therefore, was to compare the level of work a horse was in, as stated by NRC (2007), with the perceived level of work that the owner attributed to the animal. A face-to-face survey was carried out with owners of 1207 horses over the period of 2 years. Owners were asked to state the level of workload their horse was in, the levels being thus: maintenance, light, medium, hard and very hard work. Using a pro-forma sheet to record the detail, each owner was then asked how many times per week they rode/worked their horse; the length of time each bout of work lasted, and the type of exercise the work formed. Using this information, the researchers then assigned each horse to one of the previously mentioned five workload categories, based on the description of each category stated in NRC (2007). Data were analysed using a Mann-Whitney U (Wilcoxon rank sum) test via Genstat 14. It was found that data were significantly different (U=446317.5, df=1206, p<0.001), with the owner-perceived score being significantly higher than the actual score. In a small number of animals, owners had in fact, stated that their animals were in very hard work, the type of work used to describe a TB in full race training, when in fact they were deemed to be in minimal light work. Nearly three quarters of horses were categorised by their owners as being in either medium (n=407) or hard (n=314) work, whereas the largest percentage of these animals were placed into the light work category (n=535) by the authors. Given the importance of accurate workload perception for suitable dietary maintenance, it is little wonder that obesity in on the rise if these results are indicative of the wider population. It is therefore possible to conclude that horse owners in the UK significantly over-estimate the amount of work that their horses are in, which may, in turn, lead to over-feeding and confound the problems of obesity in the domestic horse population.

**Keywords:** nutrition, workload, diet, owner perceptions, obesity, welfare.