

Assessment of conformation, biomechanical, psychical and physiological traits in horses

Summary

Results of some studies conducted in the Department of Horse Breeding and Use, published in the recent five years in highly valued international journals, are presented. The studies on horse hooves showed the width of the hoof to be the most appropriate index of the absolute hoof size. As a relative measure of the size, the percentage proportion of the hoof width to the horse chest circumference was suggested. Digital image analysis of 2750 free jumps of young stallions enabled to determine the desired traits of the jump and to suggest the index of the jump. A study performed at the Three Day Events (cross-country) indicated that the scores could be partly associated with the horse vision system different than the human one. The level of cortisol in saliva was subjected to examine the stress in the horse. The results inferred that samples taken during a short-term effort did not illustrate the actual reaction to the stress. The studies conducted on initial training of Purebred Arabian horses showed that the natural method caused less increase of the heart rate than the traditional training and the response was particularly differentiated in the case of colts.

KEY WORDS: horse, hoof size, cross-country, free jumping, cortisol, sympathetic training