

Correlation between the selected forelimb measurements of half-bred stallions and their movement capacity

S u m m a r y

Research was performed on a group of 347 half-blood stallions, including 178 Polish noble, 65 Wielkopolski, 55 Małopolski and Anglo-Arab and 49 other breeds of foreign origin. All of them were trained in the Training Centre in 2001-2003. The tests involved the analysis of biometric measures and their movement capacity parameters. The analysed forelimb dimensions comprised: shoulder length, arm length, stocking girth, leg length, forearm length, stocking length. The analysed movement capacity indicators included step length and frequency and step index as well as (per cent relation between step length and height at withers of a particular horse). The tested stallions were subject to 3 tests in all analysed walks. The evaluation of correlation between the forelimb dimensions and movement capacity was carried out with the use of the multiple correlation method where movement capacity traits were treated as a variable dependent on zoometric traits which were defined as independent variables. The results constitute only the initial stage of research on links between biometric conformation traits of different horse breeds and their movement capacity but the following conclusion can be presented:

- the occurrence has been proved of significant correlations, both in this study and previous ones, between biometric measures of forelimb, hind limb and croup and natural movement capacity of horses;
- the above finding can create a fairly significant base for an early evaluation of movement predispositions of Polish half-blood horses, being in an early stage of improvement towards a better use in professional horse-riding.