

# STUDY OF THE DYNAMICS OF CERTAIN MORPHOLOGICAL CHARACTERISTICS IN SHAGYA ARABIAN HORSE BREED

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## Abstract

*This paper aimed to reveal the dynamics of several morphological traits that characterize the public breeding stallions reared between 2000-2015 and the mares from the brood stock registered between 1989-2018, in Rădăuți stud farm, Suceava county, Romania. To show the evolution of the Shagya Arabian breed the average values of height at withers, thoracic and cannon circumferences, as well as the massiveness, bone, and digital-thorax indexes were calculated. The results revealed that the limits of height for females ranged between  $156.7 \pm 0.069$  cm and  $159.9 \pm 0.102$  cm, while for males the average values for this parameter were  $157.66 \pm 1.21$  cm -  $161.22 \pm 0.84$  cm; the hearth girth had  $180.1 \pm 0.151$  cm -  $180.8 \pm 0.153$  cm for broodmares and  $177.25 \pm 4.09$  cm -  $183.33 \pm 1.83$  cm for stallions; the cannon circumference ranged from  $18.0 \pm 0.11$  cm -  $18.8 \pm 0.09$  cm for the first category of breeders and from  $18.5 \pm 0.77$  cm to  $19.16 \pm 0.31$  cm for the second one. All the bloodlines registered average values of the height higher for males than females, except for El-Sbaa bloodline; the hearth girth had lower average values for the females from Dahoman and Koheilan bloodlines and the cannon circumference was higher in males, except for Hadban bloodline, where a slightly difference was noticed. The stallions had higher values of massiveness than females (113.21% vs. 113.06%) and digital-thoracic index (11.11% vs. 10.55%), while for the bone index the males had lower results (11.81% vs. 11.93%).*

**Key words:** Shagya, dimensions, body indexes, dynamics