

Genetic Relationship of Romanian Furioso North-Star Horse Population from Slatina Studfarm with Immigrants (Other Populations)

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SUMMARY

This study of genetic relationship, between the Romanian Furioso North-Star horse population and immigrant, reveal outstanding information about breeding methods in analyzed population.

Material was represented by pedigrees of all individuals from current reproductive nucleus of Furioso North-Star horses (5 sire stallions and 33 broodmares. Method used was „The numerator relationship matrix” (A matrix) elaborated by Henderson and Cuninghame in 1976 and presented for the first time in Romania by Grosu H. in 1997.

Current genetic relationship of population with immigrant is very low (1.51%), (with sire stallions 1.66%, and with brood mares 1.49%) suggesting lack of a trend to replace the gene-tool of Furioso North Star population, with immigrant gene-tool. From all immigrant individuals, only five are males, and they have a value of zero for relationship coefficient with whole population, raisings questions regarding the import logic. The existence in population of the immigrant mares (through imports) also raises the questions: whether there were no mares available for breeding or wanted a "blood refresh" to reduce inbreeding. In all three cases is not justified the import of mares. In this population, infusion appears to have only the mean to create genetic variability, although debatable. Genetically speaking, immigration was not massive. Currently, in the population of Furioso North Star from Slatina stud farm, imports of sire stallions or brood mares definitely are not justified.

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