Chemical composition of mare milk and colostrum depending on breed and lactation stage

Summary

The aim of the work was to determine the differences in the content of basic components of colostrum and milk from mares of three breeds: Polish Halfbred (SP), Anglo-Arabian (AA) and Belgian Warmblood (BWP), maintained in different horse studs (Poland, Belgium) during the whole lactation period (6 months). The studies were conducted with milk samples of six SP mares, seven AA mares (at the age of 5-15 years), kept at Ochaby Stud (Poland) and four BWP mares (at the age of 4-17 years), coming from Donckers Stables (Belgium). Milk samples were manually collected at the presence of foals on the 1, 2, 3, 30, 60, 90, 120, 150 and 180th day after parturition in order to estimate differences in content of protein, fat, lactose and dry solids. Chemical composition of milk differed significantly in nursing mares during 6 months of lactation. No significant differences between the breeds in respect of the mean protein, lactose and fat content in mare milk were found. On the other hand, the decrease of protein and fat content and increase of lactose content (in mares of 3 breeds totally), gradually with the progress of lactation, was observed. Statistically significant differences between the examined breeds in respect of protein, lactose and fat content in milk throughout the period of lactation were found.