Improvement of calf behaviour and veal quality using rearing at foster cows

G. Grodkowski1,2, M. Stachelek1, K. Puppel2, P. Solarczyk2, K. Cypko2 and T. Sakowski1 1Institute of Genetics and Animal Breeding PAS Jastrzebiec, Postepu 36A, 05-552 Magdalenka, Poland, 2Institute of Animal Sciences, Department of Animal Breeding, Ciszewskiego 8, 02-786 Warszawa, Poland; t.sakowski@ighz.pl The experiment was carried out at the ecological farm Ekofarma Kaszubska in Poland. Ten Holstein-Friesian bulls of the same age were selected for the experiment and divided into two experimental groups. Five calves were raised in a pen without access to their mothers. They were taken with whole milk served from a bucket equipped with a teat. The remaining five bulls were reared at two foster cows. The rearing lasted six months, after which the animals were slaughtered. During the rearing, behavioural observations of each of the experimental groups were carried out every month for 3 hours. During the observation, the number of 'licking cases' of the pen equipment or other calf was counted. The study was conducted in three identical replications one after the other. The collected experimental data were statistically analysed using IBM SPSS Statistics. It was found that calves reared with suckler cows gained weight faster and were characterised by better muscle class (assessed in the EUROP system) compared to the control group. Behavioural assessments showed less adverse behaviours, such as licking other calves or pen equipment, in the suckling group compared to the control group. This difference was most evident in relation to calves up to 3 months of age. No significant differences were found between the groups of older calves. This is due to the increased need for calves to suck in the first weeks of life. Strong urine drinking tendencies were demonstrated in both groups, so this type of behaviour would not be related to the rearing system, but rather to mineral deficiencies in the diet. Based on the obtained results, it can be concluded that the increased availability of milk, and the frequent natural intake of milk directly from the udder, have a positive effect on calves' growth and well-being. 'The authors acknowledge the financial support from SusAn, an ERA-Net, co-funded under European Union's Horizon 2020 research and innovation programme (www.era-susan.eu), Grant n °696231 and funded by the National Center for Research and Development'.