

## EFFECTS OF GENDER AND SIRE LINE ON DAIRY CATTLE BEHAVIOUR IN DIFFERENT ENVIRONMENT

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**Abstract.** The purpose of this study was to investigate the effects of gender, and sire on behaviour of dairy cattle. The study included 40 animals (23 males and 17 females) which descended from 3 sires. An open-field test was applied to animals aged 12 months kept in a 10 x 10 m arena marked off into 9 squares. A manger was placed in square 8. The animals were exposed to isolation and silence on the first day, and to an unfamiliar person sitting in square 4 on the second day. On the first day of observation, heifers were more mobile than hogs. The number of grid crossings during the first 5 minutes of the 1<sup>st</sup> run on the first day and the movement time on the second day ( $P < 0.05$ ) were statistically different for different sire lineage groups. In terms of human presence, a significant difference between genders was recorded in the time of staying at the 4th square border and frequency of staying in square 4 ( $P < 0.05$ ). The genotype significantly influenced the vocalization ( $P < 0.001$ ). The results of used behavioural tests indicated that locomotor behaviour and relationship to humans are affected by the gender and sire lineage of cattle.

**Keywords:** cattle, behaviour, relation to human, gender, sire.