

THE INFLUENCE OF DAM'S BIOMETRICS MEASUREMENTS ON DYSTOCIA INCIDENCE IN BROWN BREED-THE LOSSES CAUSED BY DYSTOCIA IN CALF'S GROWTH PERFORMANCE

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Abstract. *The aim of the current study was to assess the influence of the dam's biometrics measurements on dystocia incidence in Brown cows. The second goal was to assess the loss caused by dystocia calving in calf growth performances. A total of 1440 records from 360 cows was collected between 2012 - 2020 and used to study the potential influencing factors. Data were analyzed used Statistica software. Biometrics measurements were expressed as least squares means (\pm standard error) used the Main Effect ANOVA protocol. A factorial regression model was employed to explain the influence level of studied factors. The average rate of dystocia in herd was 12.77%. Significant differences ($p \leq 0.01$) were calculated between body weights of eutocyal compared with dystocial calves (32.73 ± 0.51 kg vs. 38.12 ± 0.22 kg). Small size of dam's pelvic size facilitated occurrence of dystocia in calving. Significance differences ($p \leq 0.01$) were recorded for cows body weight (621.3 ± 7.22 vs. 649.18 ± 7.21 kg related to dystocia vs eutocya calving), rump length (52.13 ± 0.18 vs. 49.87 ± 1.24 , $p \leq 0.01$), width at hips (53.24 ± 0.48 cm vs. 51.17 ± 0.09 cm, $p \leq 0.01$) and width at ischia (36.16 ± 0.17 cm vs 32.97 ± 0.28 cm, $p \leq 0.001$). The dystocia calf recorded a 12.36% loss in body weight compared to eutocya ones, at 90 days of age. The current study could provide valuable knowledge regarding the relationship between the specificity of the Brown breed for dams-calf related factors, in terms of risk of dystocia incidence and also in calf growth rate.*

Keywords: Brown breed, dam-calf related factors, dystocia incidence, growth rate, risk of dystocia

1. Introduction

The term dystocia originates from the Greek language, composed of the terms 'dys', meaning difficult, and 'tokos' meaning birth. Generally, dystocia is defined as a difficult and prolonged calving. There are many definitions and scales in order to assess birth difficulty. Dystocia widely ranges from needed veterinary assistance [25] to difficult and very difficult birth [18] or hard pull and surgical

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