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Assessment of the relationship between production and reproductive traits in Slovak Simmental dairy cows in the Orava region

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Abstract: *A balanced relation between production and reproductive indicators is the cornerstone of the profitability of dairy cow farming. The aim of the study was to evaluate was assessment of the relationship between production and reproductive traits in Slovak Simmental dairy cows in the Orava Region.*

• Introduction

There is an antagonistic relation between milk production and reproductive performance in dairy cows. High milk yield places a strain on the cow's body and physiologically prolongs the time required for rebreeding.

• Material and method

In this study was used the records from 2020 to 2025 and 834 dairy cows (2,352 lactation) from Slovak Spotted cattle. We evaluated milk production indicators, namely kg of milk, fat, protein, and lactose, as well as component content in relation to age at first calving and calving interval. The basic statistical characteristics were evaluated using the SAS.

• Results and discussions

The average of traits milk production was 9,757.1±2418.1 kg of milk (MY), 4.3±0.42% of fat (FY), 3.6±0.21% of proteins (PY) and 4.9±0.20% of lactose (LY), as well as reproductive traits such as age at first calving (AFC) 824.86±6.74 days and calving interval (CI) 382.6±57.3 days. In the years 2020 up to 2025 was found a higher average value of the traits of milk production in kg as well as improving reproductive indicators, namely AFC and CI.

•Conclusions

In conclusion, we can state that there was a low positive to low negative correlation among the evaluated traits.

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