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**Impact of Mating of Youth Tsigai on Reproductive Indices
and Body Weight at Adult Age**

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Abstract: The impact of age and body weight on reproductive indices was studied in 43 Tsigai sheep - rusty variety over four lambing seasons. At the time of the 1st mating, the sheep had an average body weight of 40.66 kg, which increased to 52.08 kg by the 1st lambing season, at an average age of 13.80 months (1.15 years). By the 4th reproduction season, the average body weight was 45.56 kg at mating, and 48.21 kg at lambing respectively, with the sheep age being 48.71 months (4.06 years). The study found that fertility indices were unaffected by age or body weight, as the fertility rate remained constant at 81.40% across both the 1st and 4th seasons. The highest prolificacy (117.14%) were observed in the 4th lambing season, while the highest lamb survival rate (94.74%) occurred in the 3rd lambing season, compared to a lower survival rate (82.35%) in the 1st lambing season, where the mortality rate was the highest, 17.35% respectively.

• Introduction

Within a specific genotype or breed, body weight is likely the most important factor influencing the reproductive performance of young sheep. Several studies have identified positive correlations between the body weight of young sheep at first mating and their subsequent reproductive characteristics.

The purpose of the current study was to investigate the influence of age and and body weight on reproductive performances of young female from Tsigai breed – rusty variety.

• Material and method

The present study was conducted at the Reghin Experimental Base and followed the evolution of body weight and reproductive indices for a number of 43 females, starting with the 1st breeding season at the age of approximately 8-9 months and until the 4th lambing, at the age of approximately 4 years.

To analyze reproductive activity, we calculate fertility (pregnant ewes × 100/mated ewes), natality (lambd ewes born × 100/pregnant ewes), prolificacy (lambs born × 100/ewes lambd), mortality (dead lambs × 100/lambs born), and the abortion rate (Table 1).

Table 1. Characteristics analysed

Characteristics	Year			
	2021	2022	2023	2024
Mated	43	43	43	43
Pregnant	35	29	35	35
Lambd	34	29	34	35
Lambs obtained	34	29	38	41
Lambs survived	28	25	36	37

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• Results and discussions

The bogy weight and age of the ewes are presented in figure 1, and the reproductive indices in the figure 2.

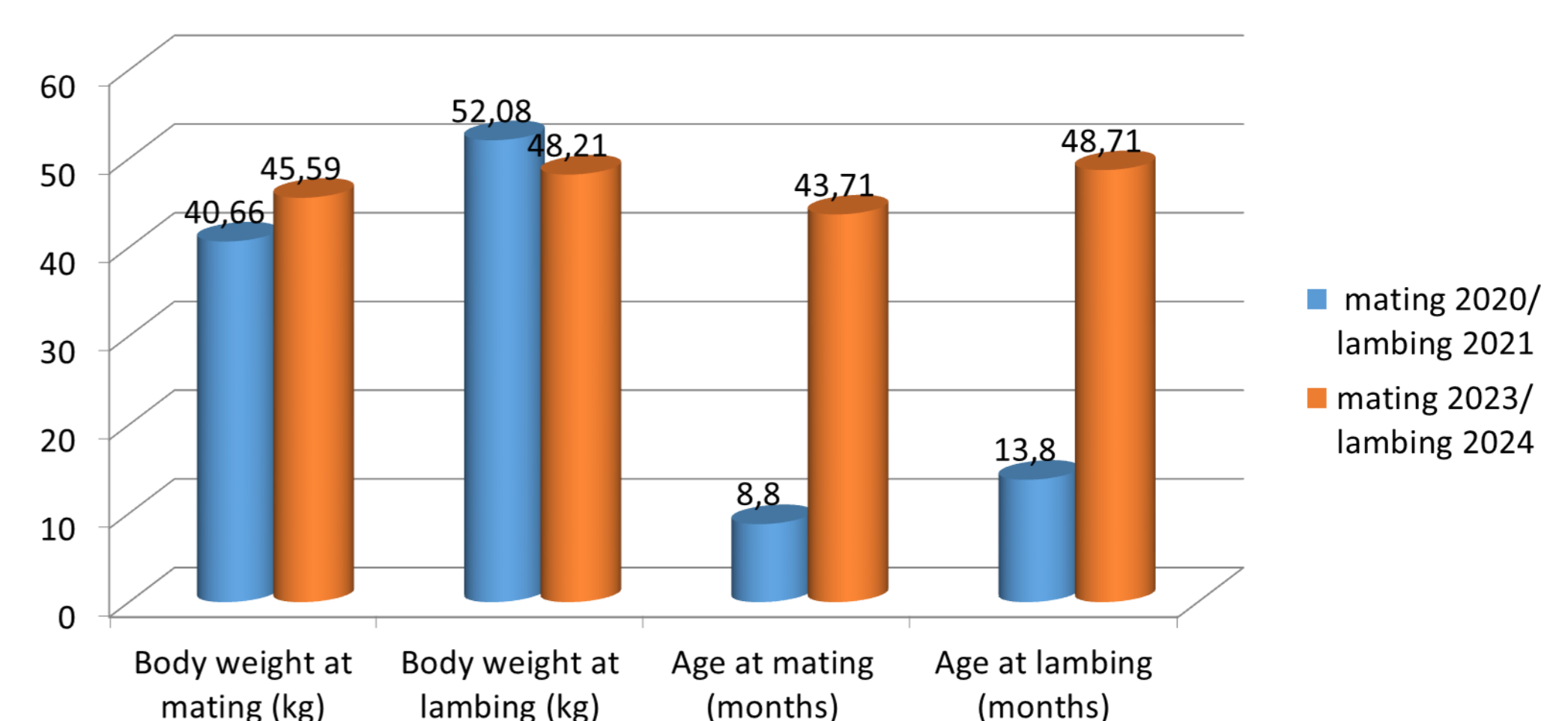


Figure 1. Body weight and age of ewes at mating and lambing

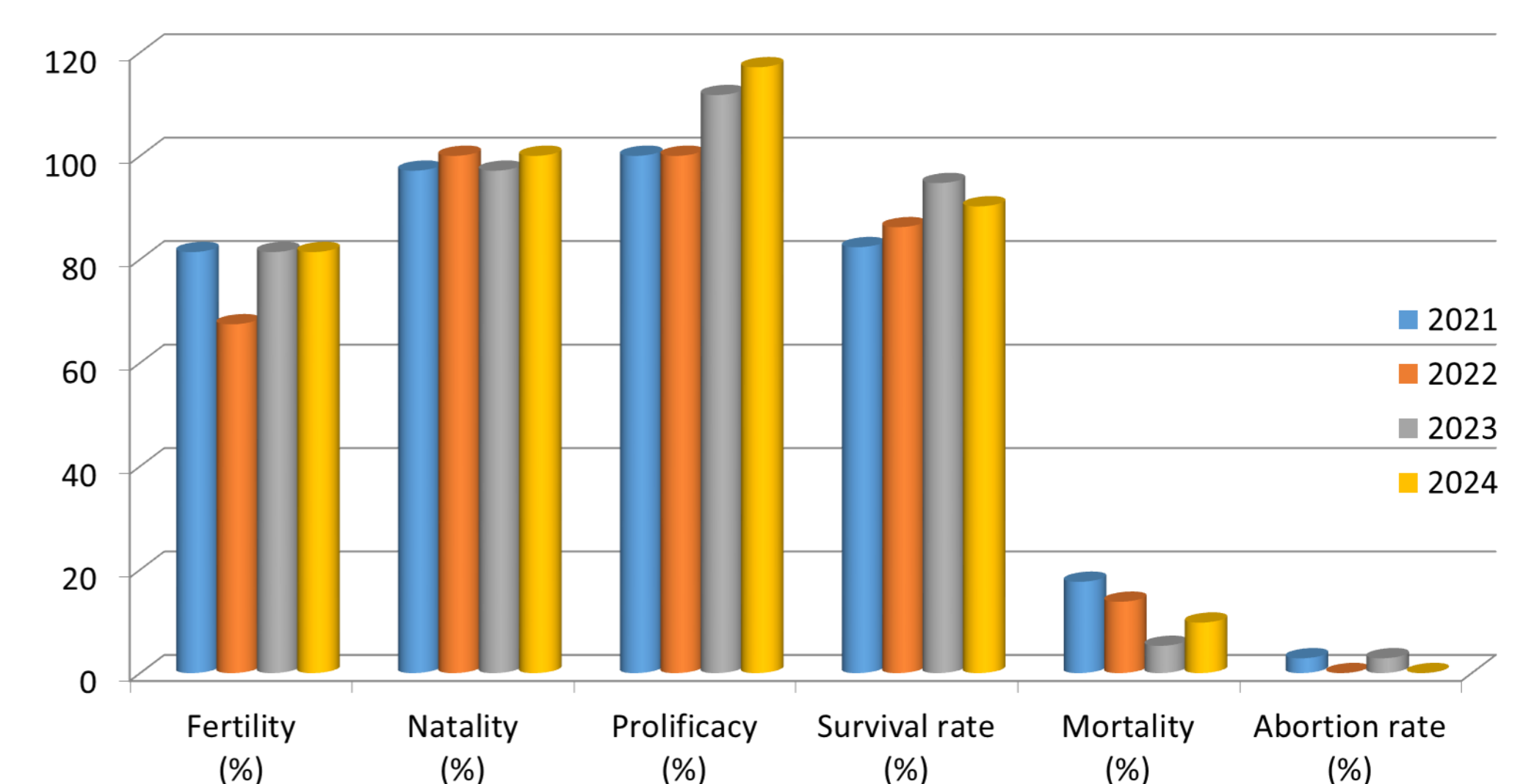


Figure 2. Reproductive indices along of four years

• Conclusions

Based on the results obtained, it can be concluded that the early introduction of young female sheep to reproduction, provided they have adequate body development, can significantly enhance the farm's economic performance.