Effect of an alternative rearing method on milk production and lamb weight gainS.A. Termatzidou, N. Siachos, P. Kazana, I. Rose and G. Arsenos

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Removing lambs from their mothers at early stages of lactation for small periods during the day may increase milk yields, because ewes have time to recover. Therefore, we tested if αν alternative rearing method affects milk production of ewes and weight gain of lambs. Forty primiparous Lacaune ewes were used. For the first 2 weeks after lambing, they were milked once a day and were kept with their lambs all day. Thereafter, ewes were allocated into 2 groups (control C and test T; n=20 in each), balanced for lambing date and prolificacy. Housing and feeding management were the same for both groups and the trial lasted 2 weeks. In group C, lambs were constantly kept with their mothers. In group T, lambs were separated for 12 h during the night and reunited again after the morning milking. Lambs had ad libitum access to feed and water. Ewes in both groups were milked once a day and milk yield (MY) was recorded using volumetric milk meters. All lambs were weighed at the start of the trial and weekly to calculate average daily gain (ADG). Mean daily MY and total MY for ewes and ADGs for lambs were logtransformed to achieve normality. Comparisons between C and T groups were done with t-test for equal variances or Mann-Whitney test for unequal variances. T ewes had higher daily MY(±SD) (0.87±0.35 vs 0.54±0.35 l, P=0.001) and produced 61% more milk (15.62±6.38 vs 9.71±7.40 l, P=0.001) than C ewes during the trial period. Moreover, mean(±SD) weight at the start of the trial was 7.36 kg (±1.4) and 8.02 kg (±1.4) for C and T lambs, respectively. C group lambs had higher ADG compared to T (295.7±102.5 vs 214.6±89.0 g, P<0.05) during the frst week. ADG during the second week and in total were not significantly different between lambs of C and T groups, although C lambs grew faster (by 25.4%). than T lambs. Therefore, alternative lamb rearing produces a trade-off between ewe milk production and lamb growth as well as higher feed and labour costs. However, when the main source of farmer’s income is milk, alternative lamb rearing may be a preferable option to optimize saleable milk production instead of producing light lamb carcasses.