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**Effect of an organic concentrate on the performance
of dairy ewes grazing at either low or high stocking rates**

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The aim of the paper is to study the effect of organic supplementation on the performance of lactating ewes fed at pasture with two different stocking rates. The experiment lasted 12 weeks; forty-eight lactating sarda ewes were used. Two stocking rate levels: high (H) vs low (L), and two types of concentrate supplements: organic (O) vs conventional (C), were studied using a randomized block design with three replicates per treatment (HO, HC, LO, and LC). The 12 groups rotationally grazed plots of Persian clover (*Trifolium resupinatum* L.) and Italian ryegrass (*Lolium multiflorum* L.) mixture. The organic concentrate was a mixture of barley (68 %) and pea grain (32 %) whereas the conventional concentrate was a mixture of maize grain (78 %) and pelleted soybean meal (22 %). The supplement mixtures were iso-proteic and were offered at iso-energetic amounts in two meals daily. All the groups received also the same amount of ryegrass hay. The average stocking rates (SR) used during the experimental periods were 18 head ha⁻¹ and 11 head ha⁻¹ for the high and low SR, respectively.

Herbage mass and its botanical and chemical composition were measured fortnightly. The intake of concentrate (individual) and hay (group average) were measured daily. The herbage intake, as well as the chemical and botanical composition of diet was also measured by the n-alkane method. Milk yield and milk composition (fat, N*6.38, urea) was measured weekly.

The intake of hay, and concentrate as fed were on average 255 ± 5 and 298 ± 3 g head⁻¹ day⁻¹ without differences between groups. No differences were found on milk yield (1739 ± 202, 1743±202, 1846±202 and 1829 ± 202 ml head⁻¹ respectively in HO, HC, LO and LC) and milk composition. The preliminary results show that there were no differences between organic and conventional supplementation on milk yield and milk composition.

Keywords: Organic concentrate, milk yield, herbage intake, sheep.