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Dairy goat grazing management: analysis of its profitability

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Goat grazing systems offer important environmental, sociological and nutritional advantages. Nevertheless, the number of grazing goat holdings has decreased slightly in the majority of EU countries. But in the three last years, there has been a change. Feed prices have gone up and there has been a decrease in milk prices, which have made that some farmers to go back to grazing their goats. The aim of this communication is to analyze different grazing management and its relationship with profitability of farms. Data from 16 farms located in Sierra de Cádiz (south of Spain) was collected by monthly monitoring during 2011. A total of 42 indicators were calculated, which were related to feeding management, milk productivity and feed and milk prices. A first, factorial, data-reduction analysis was carried out using the method of principal components. Thus the explanation of 86% variance and 2 factors were obtained. These factors were: use of pastures and forages and size of farm. After, three groups of farms were found using a cluster analysis type k-average: low (LG), medium (MG) and high grazing (HG), with 2, 9 and 5 farms, respectively. In general, grazing farms showed high milk production seasonality: 29% of milk was sold in the first trimester of year, 41% in the second, 20% in the third and 10% in the fourth. The productive and reproductive management allows a better use of grazing resources; as the highest goat feed demand coincides with the highest pasture offer (spring and autumn in the Mediterranean basin). Such, Net energy obtained from grazing is rather similar among trimesters: 34% for the first one, 47% for the second, 39 for the third and 32 for the fourth. The different feeding strategies used by farmers are reflected in the Net energy obtained from grazing (50% for HG versus 37 and 16% in MG and LG farms, respectively. Taking into account all farms, feed purchased represent the highest feeding cost (mean of 71%). The mean cost of rented land and crops are 23% and 5%, respectively, although only half of farms have such costs. The highest difference between milk income and feed cost per year worker unit corresponds to HG farms (20830 €), whilst lowest values are found in MG and LG (9200 and 6800 €, respectively). A high size of flock (665 goats), a big surface (423 ha), a good productivity (328 L sold per goat and year) and an optimum use of grazing area, are the key to obtain the best profitability for HP farms.