



Tropentag, September 17-19, 2014, Prague, Czech Republic

“Bridging the gap between increasing knowledge and decreasing resources”

The Effects of Feeding Silage on Assaf Sheep Milk Quality and Quantity

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Abstract

Silage activities are one of the main activities of Palestinian Ministry of Agriculture through several projects such as Middle East Regional Agricultural Programme (MERAP) - animal wealth component. However silage was made from different kinds of crops and byproducts using both barrel and trench method. Feed trial was conducted to study the effect of feeding silage on Assaf sheep milk quantity and quality was implemented through EVAP project which is funded by JICA. However, twenty one lactating Assaf ewes were divided according to daily feed intake to three groups: group A one fed concentrate and wheat hay as roughage source, group B fed concentrate, and roughage (50% hay, and 50% silage), and group C fed concentrate and the source of roughage was 100% silage. Total milk yield to 90 days of lactation TMY90, total milk yield to 120 days of lactation TMY120, and total milk yield to 150 days of lactation TMY150 were estimated. Milk samples were analyzed for fat, protein, minerals, lactose, and non-solid fat percentage. Data were analysed using SPSS 16 for windows. The results showed no significant difference ($p > 0.05$) in milk production between group A and group B, the difference was between group C and the other two groups ($p < 0.05$) which produced more milk. Also the percentage of fat was significantly higher in group B ($p < 0.05$) compared to group A and group B. Moreover, feeding silage raised milk production by 14% and lowered the cost of feed by 10.6 - 21.3% in group B and group C respectively. It was concluded that substitution wheat hay by 50% of silage on lactating Assaf ewes feed increased milk production and decreased daily ration cost. More feed trails are needed to study the effect of replacing part of concentrate and roughage with sufficient amount of silage.

Keywords: Milk, performance, sheep, silage