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EFFECT OF *NIGELLA SATIVA* SEEDS SUPPLEMENTATION ON MILK YIELD AND MILK COMPOSITION OF SHEEP

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ABSTARCT

A total number of 20 Ossimi ewes were used in this experiment. Ewes were randomly assigned to four equal groups, two groups suckled singles and two groups suckled twins. Ewes suckled singles (G1) fed basal single-diet while G2 fed the S-basal diet+100 mg *Nigella Sativa* seeds/kg body weight/head/day. Ewes suckled twins (G3) fed twin-basal diet while (G4) fed twin-basal diet +100mg *Nigella Sativa* seeds/kg body weight/ head/day.

Daily milk yield was measured for each ewe starting from the fifth day post lambing until weaning at 3rd month. Milk samples were taken weekly throughout the suckling period from all tested ewes. The samples were taken in the morning and afternoon and then both samples were mixed together for chemical analysis. Milk composition was determined by using 50 ml milk samples. Milk samples were analyzed for fat % and protein %. Milk energy values were calculated.

The results of this experiment indicate that milk yield showed insignificant differences at first and second weeks of the experimental period but from third to twelfth weeks the milk yield significantly increased ($P<0.01$) in G2 and G4 groups compared to the controls (G1) & G3. This result revealed that ewes reached maximum yield production (peak) at the third and fourth week of lactation then decreased after. In addition, milk yield was significantly ($P<0.01$) higher for ewes suckling twins than those suckling single lambs.

Dietary supplementation with *Nigella Sativa* seeds significantly ($P<0.01$) increased milk fat percentage, protein percentage and milk energy. In addition, fat percentage, protein percentage and milk energy gradually increased with advance of lactation until the end of the lactation period.