

**EFFECT OF UREA TREATMENT ON CHEMICAL COMPOSITION AND *IN VITRO*  
DIGESTIBILITY FOR DRIED CRUDE OLIVE CAKE.**

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**ABSTRACT**

This study was conducted to determine the effect of Urea treatment on the chemical composition, *in vitro* digestibility of olive cake product .Olive cake was treated with 7.17% urea (equivalent to 3.3% Ammonia) using three moisture levels (0, 10, and 20%) The treated were incubated for 0, 15and 30 days at three incubation temperature (0, 20, 40° C). Urea had a highly significant ( $p<0.01$ ) effect on the chemical composition of olive cakes. Urea treated olive cakes had a significant increase ;*In vitro* organic matter digestibility (IVOMD) increased from 40.53 to 45.12% and total nitrogen ، ammonia-nitrogen (9.12and 6.75g/kg DM) compared to the untreated (1.8and 0.13 g/kg DM),respectively. The levels of lignin were significantly lower in the treated olive cakes (213.78g/kg DM) compared to control (244.85 g/kg DM). The urea treatment enhanced improved both the (IVDMD) and organic matter digestibility (IVOMD) .In conclusion, The overall nutritive value of olive cakes was significantly enhanced in response to urea .The best treatment was associated with 20% moisture and 30 days incubation time and 40°C incubation temperature.