

### البحث الأول

M. Y. Mohamed, A. M. Abd El-Hafeez, E. M. M. Ibrahim and <b>A. M. Abd El-Mola (2019)</b> . Ameliorative effects of organic and inorganic mycotoxin binders on the performance of Ossimi sheep. <i>Egyptian Journal of Sheep &amp; Goat Sciences 14 (3): 33-48.</i>	البحث الأول
مشارك مع آخرين داخل وخارج التخصص – منشور	1

<b>Title</b>	<b>Ameliorative effects of organic and inorganic mycotoxin binders on the performance of Ossimi sheep.</b>
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### ABSTRACT

This investigation is an endeavor to prevent or limit the negative effects resulted of ingesting diets contaminated with a combination of aflatoxin B1 (AFB1) and ochratoxin A (OTA). This experiment aimed to evaluate the efficacy of supplementing diets with organic, inorganic and/or mixed toxin binders, throughout a feeding and digestibility trials, to relieve mycotoxins' negative effect towards maintaining the productive and reproductive performance of Ossimi ewes and their offspring. One hundred Ossimi ewes averaged  $38.97 \pm 0.55$  kg body weight and aged 3 to 4 years were chosen, 30 days before the expected lambing date and divided randomly into five equal groups (20 each). The first group received an uncontaminated diet and served as a negative control (NC). The second group fed a diet contaminated with AFB1 mixed with OTA and served as a positive control (PC), while the third group fed contaminated diets and supplemented with organic toxin binder (OB). The fourth group fed contaminated diet supplemented with inorganic toxin binder (IOB) and the fifth group fed contaminated diet and supplemented with a mixture of OB and IOB (OB+IOB).

The results showed that PC group had decrease in levels of digestibility coefficients, feeding values, milk production, feed intake, serum total protein, albumin, glucose and cholesterol while had increase of ALT, AST and urea concentrations. The decrease of ewes' body weight was associated with increased age at 1st estrous post-lambing versus decreasing the fertility parameters of the PC group. Besides, there was a decrease in thyroid hormones and antioxidant activities versus the increase in malondialdehyde concentrations. In the same group, changes in ewes' body weight decreased, while the feed conversion ratio increased with the PC group compared to the NC control group. Whereas, all treatments tested in the current study could reverse the mycotoxin-induced effects significantly and restore the normal levels of animals. In conclusion, IOB alone, or the mixture of OB+IOB, can be added to ewes' diets for the relief of symptoms induced by mycotoxin.