The effects of citrus peel oil supplementations on some blood parameters in broilers

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The present study was conducted to determine dietary supplemental citrus peel oils (orange, lemon, bergamot) in different levels (1, 2 and 3 ml/kg) on some blood parameters in broilers. The trial consisted of 1-day-old male and female (250 male and 250 female) Ross 308 chicks. The study consisted of 10 groups in total and each group had 5 subgroups. Experimental diets were prepared by adding orange, lemon and bergamot peel oil levels (1, 2 and 3 ml/kg) to basal diet. It was observed that supplementation of citrus peel oils to their diets significantly changed HDL-cholesterol. Especially, the highest HDL-cholesterol value was obtained from broilers fed with 1 ml/kg orange peel oil. However, LDL-cholesterol value was not affected by supplementing citrus peel oils. It was found that the lowest total cholesterol level was in the groups which had 2 ml/kg of orange peel oil in the ration and the highest cholesterol level was in the groups which had 1 ml/kg of orange peel oil in the ration. Citrus peel oils except for levels of 1 ml significantly increased glucose values. The lowest glucose value was obtained from broilers fed with 1 ml/kg lemon peel oil. Highest TG concentration was in the groups added 1 ml/kg of lemon peel oil and the lowest was in the groups added 3 ml/kg of orange peel oil to the ration. In this study, it was observed that with 2 ml/kg lemon and 3 ml/kg orange additions triglycerides values decreased significantly but 1 ml/kg lemon peel addition increased the value of triglyceride. As a result, because HDL cholesterol increased and decreased TG value and LDL cholesterol (numerically), 2 ml/kg lemon peel oil and 3 ml/kg orange peel oil addition to the ration may be suggested.

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Comparatives of two bio-stimulation protocols in relation to lifetime reproductive performance in South African Mukota sows

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30 sows were assigned per group to each of two bio-stimulation protocols, twice daily (08:30 to 09:00 and 16:00 to 16:30) per 30 minutes duration in a four-week observation per parity over three parities. The bio-stimulation protocols involved fence-line boar exposure (FBE), in which sows were exposed to fence-line boars during estrus detection and physical boar exposure (PBE), in which sows received physical contact with the boar during estrus detection. Estrus was synchronized in sows by a single subcutaneous injection of P.G. 600° (400 IU PMSG with 200 IU HCG/5 mL dose/animal). Sows on each treatment were artificially inseminated using semen from the same boars and collections. All experimental females received inseminations of 3.5±109 sperm/80 mL at 24 hours after onset of estrus. Sows that received physical boar exposure in parity 3 produced a higher estrus expressions (98±23.1 vs. 77.5±25.5%), NRR (92.1±6.3 vs. 74.4±3.5%), farrowing rate (88.2±16.5 vs. 63.8±7.1%), litter size (12±0.02 vs. 8±0.05) and live piglets (10±0.05 vs. 6.3±0.02), respectively compared with those from sows that received fence-line boar exposure in parity 3. Direct exposure of boars to sows prior to estrus induction and artificial insemination progressively enhances the lifetime reproductive performance in South African Mukota sows.

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