

عنوان مقاله:

The effects of Nano-Selenium and Sodium Selenite on gene expression of SelP, GPx ϵ and SelW in broiler breeder Testis

محل انتشار:

هفتمین کنگره بین المللی دامپزشکی طیور (سال: 1398)

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خلاصه مقاله:

Objectives: Selenium is a trace element that is discovered and admitted for nearly 5 decades. It actively participates in oxidative stress resistance and reproductive performance. For male reproductive system development, optimum level of Selenium in testis is required. The aim of this study was to conduct a survey about effects of different forms of dietary selenium (Se) supplementation, mainly Nano-Se on gene expression of Selenoprotein P (SelP), Glutathione peroxidase ϵ (GPx ϵ) and Selenoprotein W (SelW) in broiler breeder rooster's testis. **Materials & Methods:** A total of 30 Arbor Acres Broiler Breeder males (more than 40 weeks) were randomly divided into five groups, each of which included 3 replicates of 2 birds. These five groups contained a control group and four treatments receiving the same basal diet supplemented with 0.3 mg Se/kg as Sodium Selenite (SS) in T1 or 0.15 mg Se/kg as Nano-Selenium in T2 or 0.3 mg Se/kg as Nano-Selenium in T3 or 0.6 mg Se/kg as Nano-Selenium in T4 for 4 weeks after one week of adaptation. After experimental period, testis samples were collected for detecting expression of three specific SelP, GPx ϵ and SelW genes. **Results & Conclusion:** The results indicated that by increasing Nano-Se level in the diet, the mRNA expression level was increased and the highest mRNA expression of all three mentioned genes was observed in the treatment of 0.6 mg/kg Nano-Selenium (T4). Also, at the same amount of different types of Se sources (Nano-Se vs Sodium Selenite (SS)) the Nano-Se compared to the inorganic form (SS) had greater mRNA expression of selenoprotein genes.

کلمات کلیدی:

Broiler Breeder, GPx ϵ , Nano-Selenium, SelP, SelW

لینک ثابت مقاله در پایگاه سیویلیکا:

