



MINISTRY OF JIHAD-E-AGRICULTURE  
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### **Production of enriched turkey meat and eggs with selenium**

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#### **Abstract**

This experiment was performed to compare the nutritional effect of different levels of selenium-rich yeast on the functional and production characteristics and production compounds (meat and eggs) of native turkeys of East Azerbaijan. The number of 160 adult turkeys at 24 weeks of age from a herd in a completely randomized design with 4 treatments and 4 replications in 16 experimental units (cages) were fed for 60 days in peak of production with experimental diets according to the requirements of laying turkeys, recommended in NRC (1994) table, including corn, soybean meal and wheat. Experimental treatments were regulated using selenium-rich yeast (containing 2932 mg / kg selenium). Average comparison of the effect of different levels of selenium-rich yeast on functional characteristics in native turkeys of Azerbaijan aged 24 to 32 weeks (production start) showed that the difference in selenium-rich yeast level among the treatments did not have a significant effect on consumed food, weight change and feed conversion ratio ( $p < 0.05$ ). The comparison of the effect of different levels of selenium-rich yeast on the egg production characteristics of native turkeys of Azerbaijan aged 24 to 32 weeks showed that the level of yeast rich in selenium did not have a significant effect on average egg weight but had significant effect on average egg number, average price of food and average feed cost per kilogram of egg production ( $p < 0.05$ ), so that by increasing the amount of yeast rich in selenium each of the treatments from 0.4 to 0.8 mg, the average number of eggs, average price of feed and average cost of food per kilogram of egg production increases. The results showed, the level of yeast rich in selenium of diet has a significant effect on the amount of selenium in eggs (micrograms), the amount of selenium in 100 grams of male turkey meat (micrograms) and the amount of selenium in 100 grams of female turkey meat (micrograms) ( $p < 0.05$ ), so that by increasing the amount of yeast rich in selenium from 0.4 to 0.8 mg, the amount of selenium in eggs and meat increased. results show that the level of selenium-rich yeast of diet significantly affects live weight, carcass weight, breast weight, thigh weight, wings weight, neck weight and weight of empty gizzard ( $p > 0.05$ ). It is concluded that using 272 mg / kg selenium yeast in the diet of 24-week-old native turkeys can improve egg production, , egg selenium and turkey meat Improved.

**Keywords:** Native turkey, selenium, meat quality, egg quality, yield