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UPORABA ORGANSKOG OBLIKA SELENA U CILJU PROIZVODNJE FUNKCIONALNE HRANE

USING ORGANIC SELENIUM TO PRODUCE FUNCTIONAL FOOD

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SAŽETAK

U radu su prikazani rezultati ispitivanja efekata dodavanja obroku brojlera organskog oblika selena na proizvodne i klanične karakteristike, kao i kvalitet mesa kod tova brojlera. Ogled je izveden na ukupno 150 jedinki podeljenih u tri grupe. Ogled je trajao 42 dana, a podeljen je u tri faze. Tokom ogleda izvršena su kontrolna merenja telesne mase brojlera i količine konzumirane hrane.

Brojleri su hranjeni potpunim smešama za ishranu brojlera u tovu standardnog sirovinskog i hemijskog sastava koje su u potpunosti zadovoljavale potrebe u različitim fazama tova. Potpuna smeša za početni tov (starter) korišćena je od 1–21. dana, grover od 22–35 i finišer od 36–42. dana. Tokom ogleda prva O-I grupa brojlera hranjena je smešama sa dodatim organskim selenom u količini od 0.3 ppm, druga O-II grupa, dobijala je hranu sa dodatkom 0,6 ppm, i treća ogledna O-III sa dodatkom 0,9 ppm organskog selena.

Na kraju ogleda izvršeno je merenje telesne mase piladi, određivanje konverzije hrane, klanje brojlera i obrada trupa. Trupovi su obrađeni (pripremljeno za roštilj), ohlađeni i izmereni. Od po šest trupova iz svake grupe su uzeti uzorci mesa –belog i tamnog za analizu sadržaja selena. Prinos mesa brojlera (randman) je izračunat na osnovu mase žive i mase zaklane živine.

Na kraju ogleda najvišu telesnu masu imali su brojleri prve ogledne grupe (2226,50 g), kao i najbolju konverziju (2,14 kg), najveću masu trupa (1473.80g), i nabolji randman (66.06%). Sadržaj selena u mesu (belom i tamnom) razlikovao se po grupama u zavisnosti od dodatog selena u smeše. Najveću vrednost za sadržaj selena u belom mesu imala je O-III grupa (0,9 ppm Se) i iznosio je $0,61 \pm 0,06$ mg/kg, a kod tamnog mesa u O-III grupi 0,54 mg/kg selena.

Dodavanje povećanih količina organskog oblika selena u smeše brojlera pruža mogućnosti proizvodnje mesa određenog kvaliteta, odnosno, sa povećanim sadržajem selena u proizvodnji aktuelnih »dizajniranih proizvoda«.

Ključne riječi:

selen, brojler, proizvodni rezultati, prinos mesa

ABSTRACT

In this paper effects of broiler meal supplementation with organic selenium on productive results, meat yield (randmane) and meat quality were investigated. Experiment was made on total number of 150 broilers, who were divided into 3 groups. Experiment lasted 42 days and was divided into three parts. During the experiment were performed measuring the body weight of broilers, amount of feed consumed and conversion.

Broilers were fed with complete feed mixtures for fattening; these mixtures of standard feedstock (and chemical composition) and were completely adequate to broiler needs in different stages of fattening. Complete the initial mixture for fattening broilers (starter) was used from 1–21. day, grover 22–35, and finisher 36–42 days. During the experiment the first experimental group (O-I) of broilers fed the mixture with added organic selenium in

the amount of 0.3 ppm, the second O-II group, received the food with the addition of 0.6 ppm organic selenium, and the third experimental group O-III with the addition of 0.9 ppm organic selenium.

At the end of the experiments carried out the measurement of body mass poultry, determining the conversion of feed, slaughter broilers and processing of the trunks. Slaughtered chickens processed (prepared for the grill), cooled and measured. Of the six trunks from each group were taken samples of meat-white and dark for the analysis of selenium content. Meat yield (randmane) was calculated on basis of mass of live and slaughtered broilers.

At the end of the experiment the highest body mass were the first experimental group of broilers (2226,50 g), and the best conversion (2,14 kg), the largest mass of slaughtered chickens (1473,80 g), and better meat yield (66,06 %). Selenium content in meat (white and dark) between to groups different depending on the added selenium in the mixture. The highest value for the selenium content of white meat had the O-III group (0,9 ppm Se) and was $0,61 \pm 0,06$ mg/kg, and the dark meat in the O-III group, 0,54 mg Se/kg.

Adding increased amounts of organic forms of selenium in a mixture of broilers meat production and offers a certain quality, with higher content of selenium in current production of »designed product«.

Key words:

selenium, broiler, production results, meat yield